HCD-WZ88D

SERVICE MANUAL

E Model
Australian Model

Self Diagnosis Supported model

Ver. 1.1 2005.11

HCD-WZ88D is the Tuner, and the CD/DVD player section in MHC-WZ88D.

This system incorporates with Dolby* Digital and Dolby Pro Logic (II) adaptive matrix surround decoder and the DTS** Digital Surround System.

* Manufactured under license from Dolby Laboratories. "Dolby," "Pro Logic," and the double-D symbol are trademarks of Dolby Laboratories.

** Manufactured under license from Digital Theater Systems, Inc. "DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

DVD Section	Model Name Using Similar Mechanism	NEW
	DVD Mechanism Type	CDM85-DVBU102
	Optical Pick-up Name	KHM-310CAA/C2NP

SPECIFICATIONS

Disc player section

System	Compact disc and digital audio and video system
Laser	Semiconductor laser (DVD: λ = 650 nm, CD: λ = 790 nm) Emission duration: continuous
Frequency response	DVD (PCM 48 kHz): 2 Hz – 22 kHz (±1dB) CD: 2 Hz – 20 kHz (±0.5 dB)
Video color system format	
Latin American models	NTSC
Other models	NTSC, PAL

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Latin American model:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
Saudi Arabian model:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz) 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
Argentina models:	220 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Saudi Arabian model:	120 – 127 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Thai model:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	225 watts
Dimensions (w/h/d)	
DVD player/Tuner:	Approx. 255 × 134 × 343 mm
Mass	
DVD player/Tuner:	Approx. 3.0 kg
Supplied accessories:	Remote Commander (1) Batteries (2) AM loop antenna (1) FM lead antenna (1) Speaker pads (20) Speaker cords (5) Video cord (1)

Design and specifications are subject to change without notice.

CD/DVD PLAYER TUNER

9-879-693-02
2005K16-1
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Sony Corporation
Home Audio Division
Published by Sony Engineering Corporation

SONY

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

The following caution label is located inside the apparatus.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

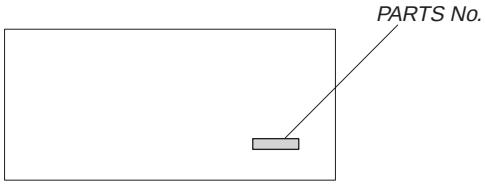
CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Note:
HCD-WZ88D does not operate independently.
DXA-WZ88D is required to operate this.
In this case of a service, please connect DXA-WZ88D.

Note on DMB10 board replacement

New part of EEP ROM (IC103) on the DMB10 board cannot be used. Therefore, if the mounted DMB10 board (A-1122-695-A, etc.) is replaced, exchange new EEP ROM (IC103) with that used before the replacement.

MODEL IDENTIFICATION
– Rear Panel –



Model	Part No.
SP model	2-580-702-0
E12, E13 models	2-580-702-1
E15, E3 models	2-580-702-3
PL model	2-580-702-4
EA model	2-580-702-5
AUS model	2-580-702-6
TH model	2-580-702-7
E51 model	2-580-702-8
AR model	2-580-702-9

- Abbreviation
  AR : Argentine model.
  AUS : Australian model.
  E3 : 240 V AC area in E model.
  E12 : 220-240 V AC area in E model.
  E13 : 220-230 V AC area in E model.
  E15 : 220-240 V AC area in E model.
  E51 : Chilean and peruvian models.
  EA : Saudi Arabia model.
  PL : Phillippines model.
  SP : Singapore and Malaysia models.
  TH : Thai model.

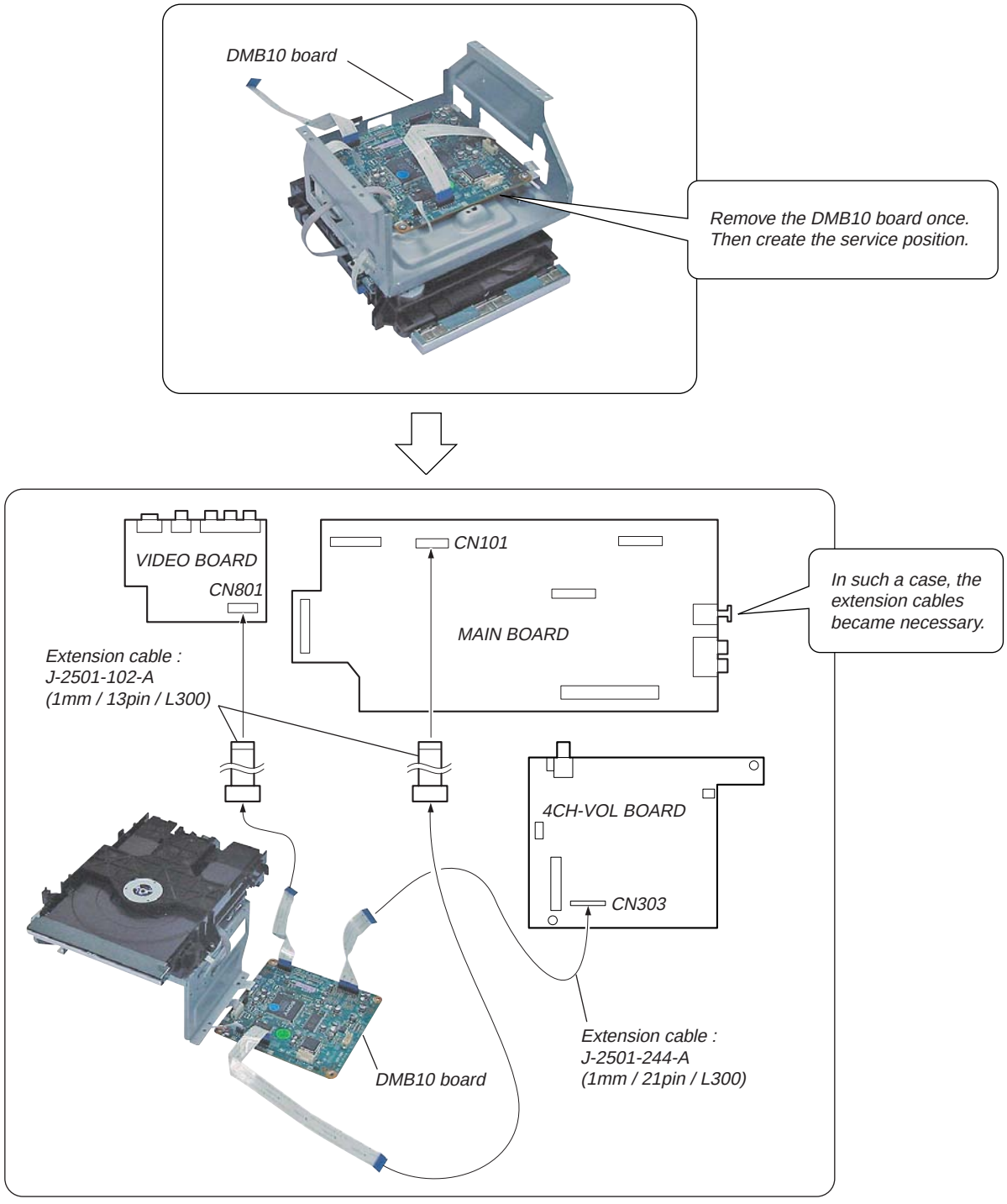
Self-diagnosis function

(When letters/numbers appear in the display)

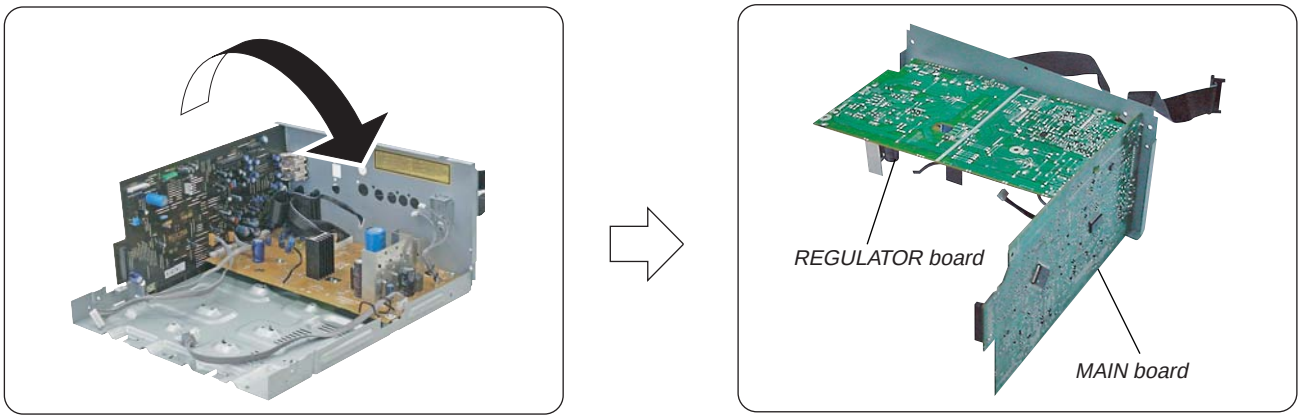
When the self-diagnosis function is activated to prevent the system from malfunctioning, a 5-character service number (e.g. C 13 50) with a combination of a letter and 4 digits appears in the on-screen display and the front panel display. In this case, check the following table.

First 3 characters of the service number	Cause and corrective action
C 13	The disc is dirty. → Clean the disc with a soft cloth
C 31	The disc is not inserted correctly. → Restart the system, then re-insert the disc correctly.
E XX (XX is a number)	To prevent a malfunction, the system has performed the self-diagnosis function. → Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

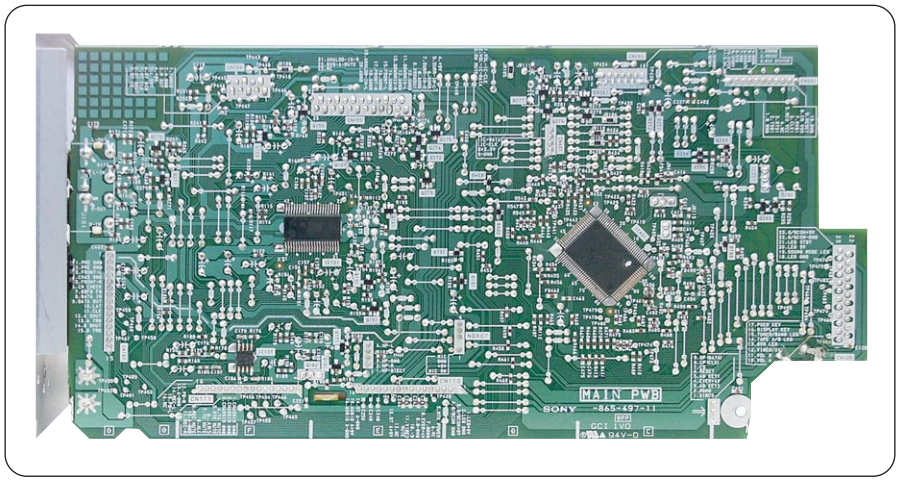
- **DMB10 board service position**



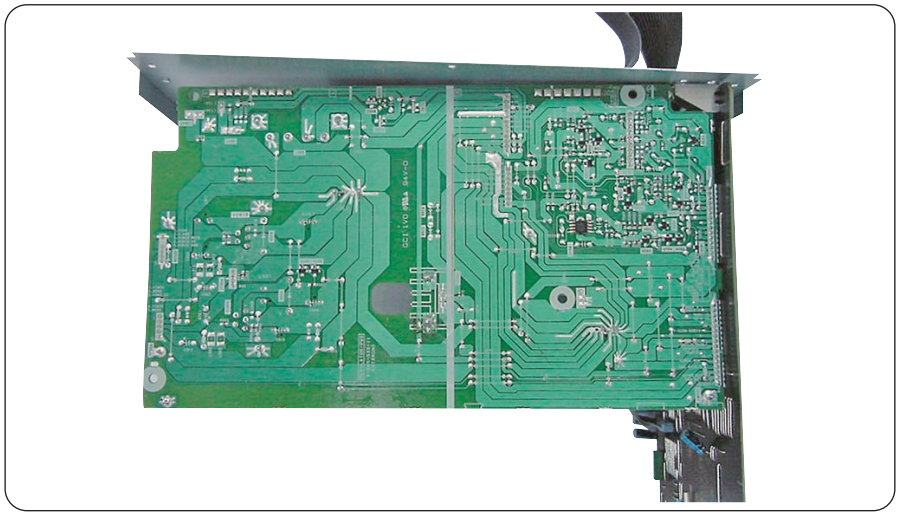
• **REGULATOR board service position**



MAIN BOARD



REGULATOR BOARD



SECTION 2
GENERAL

This section is extracted from instruction manual.

List of button locations and reference pages

How to use this page

Use these pages to find the location of buttons and other parts of the unit and the remote that are mentioned in the text.

Illustration number
TAPE A/B 20 (61, 64, 71, 72, 75)
Name of button/part — Reference page

Main unit

ALPHABETICAL ORDER

A – L

CD SYNC 15 (62, 63, 89)
DIRECTION 2 (61, 63, 71, 75)
Disc tray 6 (15, 18, 30, 31, 33, 37)
DISPLAY 4 (76)
Display window 5 (11)
DSGX 10 (64)
DVD 20 (14, 17, 19, 62, 63, 67, 87)
ECHO LEVEL 16 (67, 68)
EQ SELECT 12 (66, 67)
IR (receptor) 7 (85)

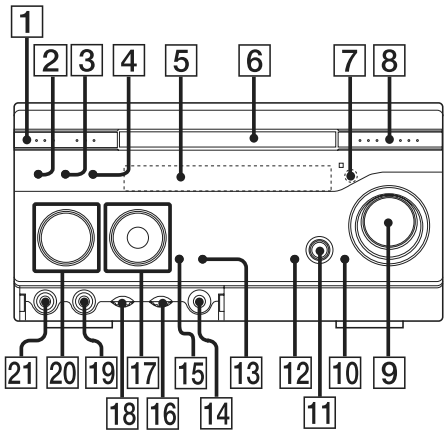
M – Z

MIC 1 21 (67, 71, 84)
MIC 2 19 (67, 71, 84)
MIC LEVEL 18 (67, 68, 71, 84)
PHONES (headphone jack) 14 (84)
PRESET +/– 17 (58)
PROGRESSIVE 2 (10, 17, 53, 81, 87)
REC PAUSE/START 13 (62, 63, 71)
SA-CD/CD 3 (26, 62)
SOUND FIELD 11 (65)
TAPE A/B 20 (61, 64, 71, 72, 75)
TUNER/BAND 20 (58, 59, 60, 63)
VIDEO/SAT 20 (63, 81)
VOLUME 9 (56, 57, 73, 84)

BUTTON DESCRIPTIONS

I/⏻ (power) 1 (11, 59, 81, 89)
⏸ (pause) 17 (11)
◁▷ (play) 17 (19–21, 27, 30, 33, 36–39, 49, 52, 61–64, 72, 75, 84, 86)
■ (stop) 17 (59, 62–64, 71, 72, 89)
▶▶▶▶| (fast forward/go forward) 17 (19, 27, 30, 31, 38, 61, 62, 64–67)
|◀◀◀◀ (rewind/go backuard) 17 (19, 27, 30, 31, 38, 61, 62, 64–67)
⏏ 8 (15, 18, 86)

DVD player/Tuner



Setting the clock

1 Press I/⏻ to turn on the system.

2 Press TIMER MENU.

The hour indication flashes in the display.

3 Press ↑ or ↓ repeatedly to set the hour.

4 Press ENTER.

The minute indication flashes in the display.

5 Press ↑ or ↓ repeatedly to set the minute.

6 Press ENTER.

The clock starts functioning.

To adjust the clock

1 Press TIMER MENU.

2 Press ↑ or ↓ repeatedly to select "CLOCK SET?", then press ENTER.

The hour indication flashes in the display.

3 Do the same procedure as steps 3 to 6 above.

Notes

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

You cannot set the clock in Power Saving Mode

Remote control

ALPHABETICAL ORDER

A – P

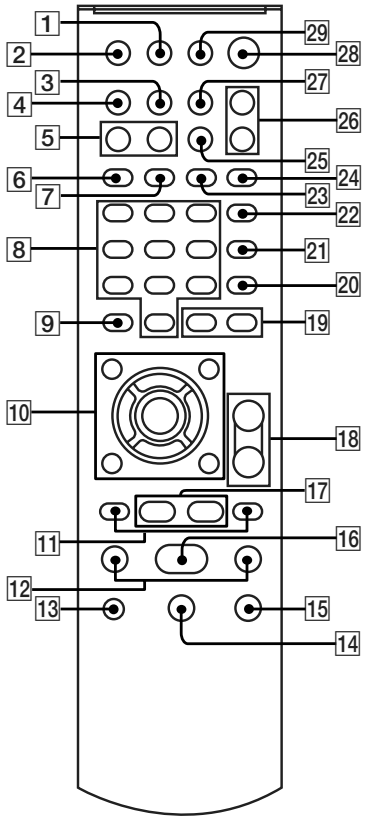
ADVANCE ●➡ 17 (19)
ALBUM +/– 19 (16, 19)
ANGLE 20 (45)
AUDIO 22 (43, 44, 82)
CLEAR 9 (16, 22, 24, 41, 55)
DISC SKIP 27[1)]
DISPLAY 4 (76)
ENTER 10 (13–15, 19, 21–27, 31–35, 37, 41, 42, 46–51, 55, 56–60, 68–71, 73–75, 89)
FM MODE 23 (60, 88)
FUNCTION +/– 26 (14, 17, 19, 58, 60, 61, 67, 75, 87)
KARAOKE MODE 6 (68, 82, 87)
KARAOKE PON 7 (68)
KEY CONTROL ♯/♭ 5 (69)
MENU 10 (25, 30–33, 37, 58, 59)
Numeric Buttons 8[2)] (11, 16, 19, 25, 27, 41, 47–51, 60)
PICTURE NAVI 24 (31, 33, 42)
PRESET –/+ 11 (58–60)

R – Z

REPEAT 23 (24)
REPLAY ⬅● 17 (19)
SLEEP 2 (16, 73)
SLOW ◄❚/❚► 12 (39)
SOUND FIELD 25 (65, 66, 82)
STEP ◄II/II► 17 (39)
SUBTITLE 21 (45)
THEATRE SYNC 29 (16)
TIMER MENU 1 (13, 73, 74, 75)
TIME/TEXT 3 (76, 77, 78)
TOP MENU 10 (25)
TUNING +/– 12 (58, 60)
TV 13 (11)
TV CH +/– 11 (11)
TV/VIDEO 2 (11)
TV VOL +/– 18[2)] (11)
TV I/⏻ 28 (11)
VOLUME +/– 18[2)] (56, 57, 73, 84)
-/-- 9 (11)
10/0 8

SYMBOLS

I/⏻ (power) 28 (11, 13, 14, 74, 75, 84)
■ (stop) 15 (19, 20, 27, 30–33, 37, 46, 59, 61, 75, 86)
❚❚ (pause) 14 (19, 61)
▷ (play) 16[2)] (19–21, 27, 30, 33, 36–39, 49, 52, 61, 62, 75, 84, 86)
⏮ (go backward) 11 (19, 27, 30, 31, 38, 62, 64)
⏭ (go forward) 11 (16, 19, 27, 30, 31, 38, 62, 64)
◀◀ (rewind) 12 (38, 61)
▶▶ (fast forward) 12 (38, 61)
⬆/⬇/⬅/➡ 10 (13–15, 21–23, 25, 26, 30–35, 37, 40–42, 46–51, 56, 57, 65, 68–71, 73–75, 89)
↩ RETURN 10 (27, 31, 37, 42)
▭ DISPLAY 10 (15, 21–26, 33, 34, 40–42, 46, 48, 50, 56, 68–71, 79, 89, 97)

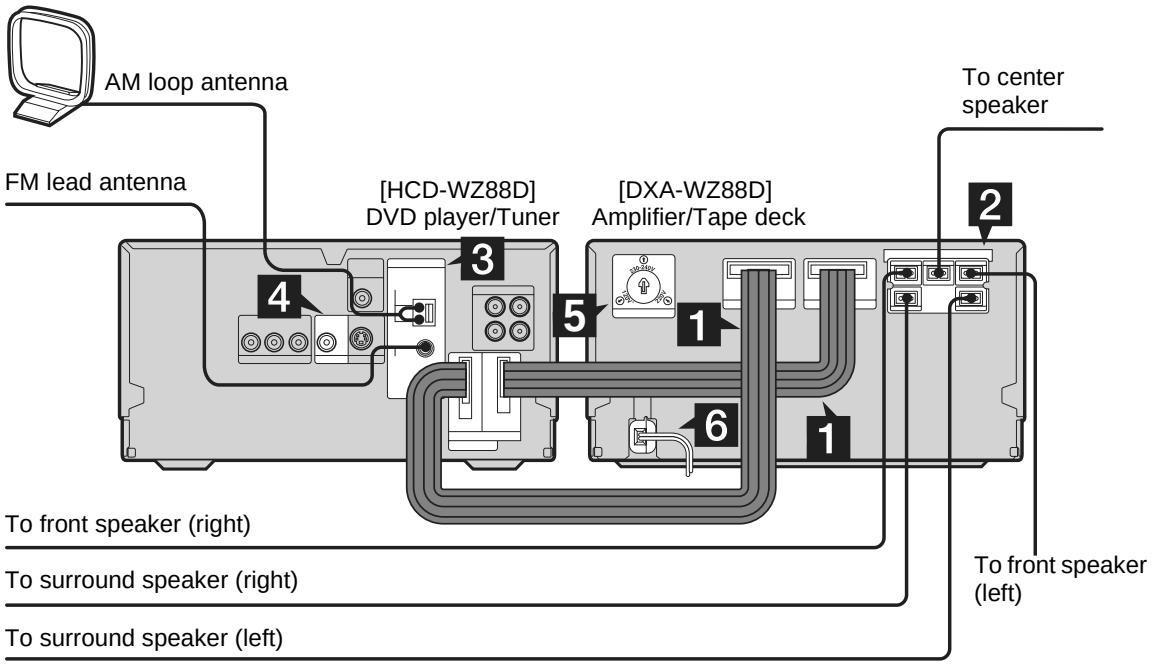


1) This button is not available for this model.
2) The numeric button 5, TV VOL +, VOLUME + and ▷ buttons have a tactile dot. Use the tactile dot as a reference when operating the system.

Getting Started

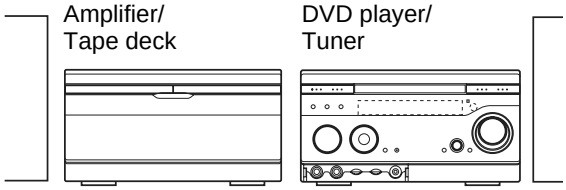
Hooking up the system

Do the following procedures **1** to **7** to hook up your system using the supplied cords and accessories.

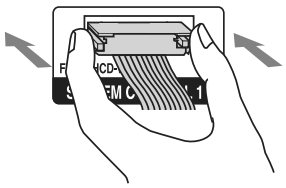


Preparation

Place the components as shown below.



1 Connect the system control cables from the DVD player/Tuner component to the appropriate (same numbered) SYSTEM CONTROL connectors on the Amplifier/Tape deck component.



Note

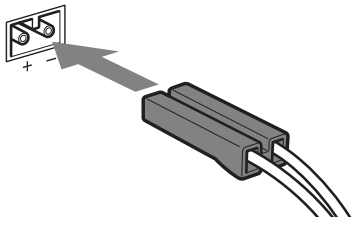
The system control cables are used to send audio and electrical signals between the components for interlinked operation.

Be sure to insert the connector horizontally until it clicks into place. Otherwise the system will not operate correctly.

2 Connect the speakers.

Be sure to match the appropriate speaker cords from the speaker terminals to the corresponding SPEAKER terminals on the Amplifier/Tape deck component as shown below.

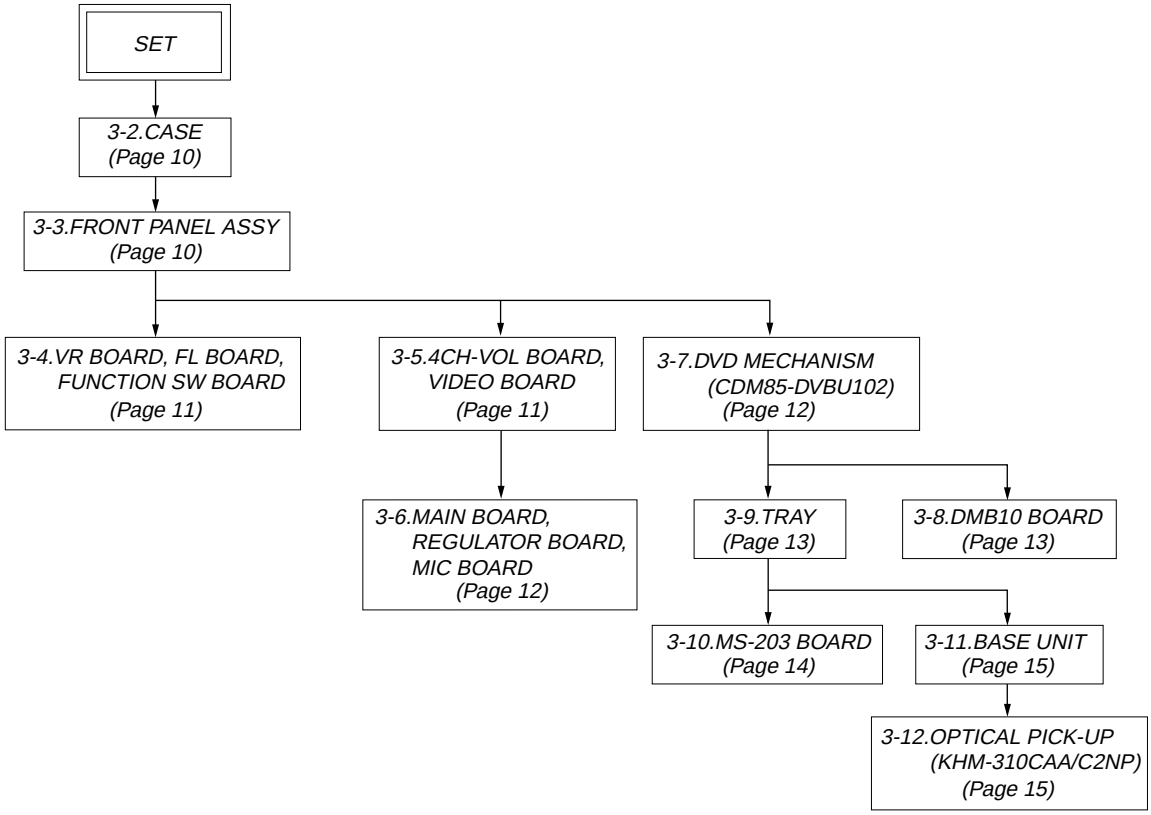
Amplifier/Tape deck



SECTION 3
DISASSEMBLY

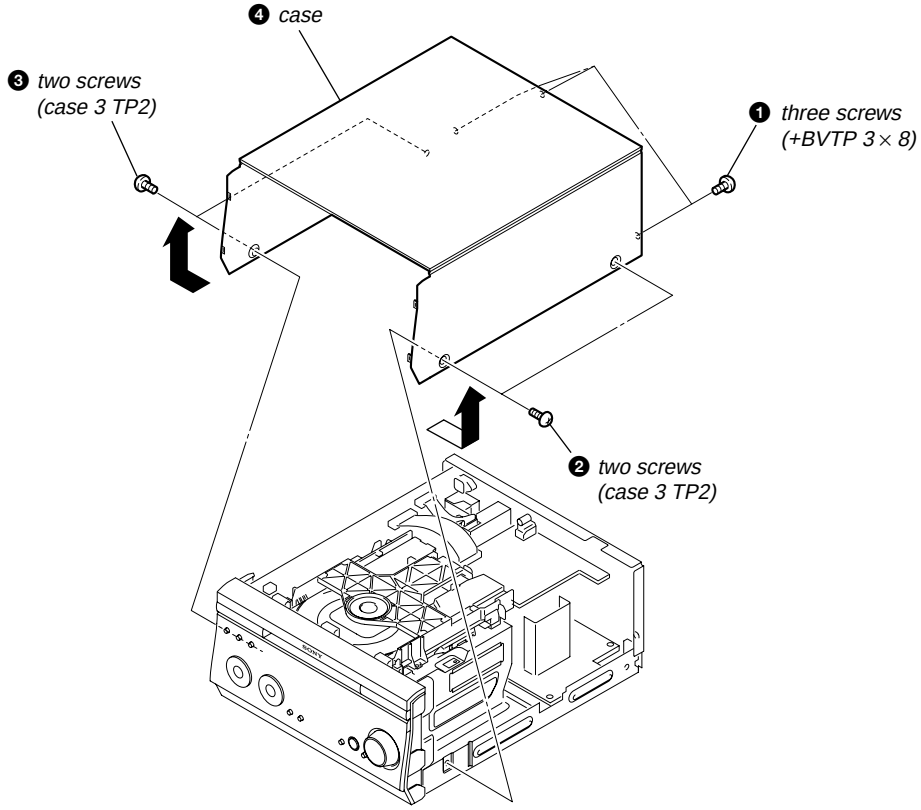
3-1. DISASSEMBLY FLOW

• This set can be disassembled in the order shown below.

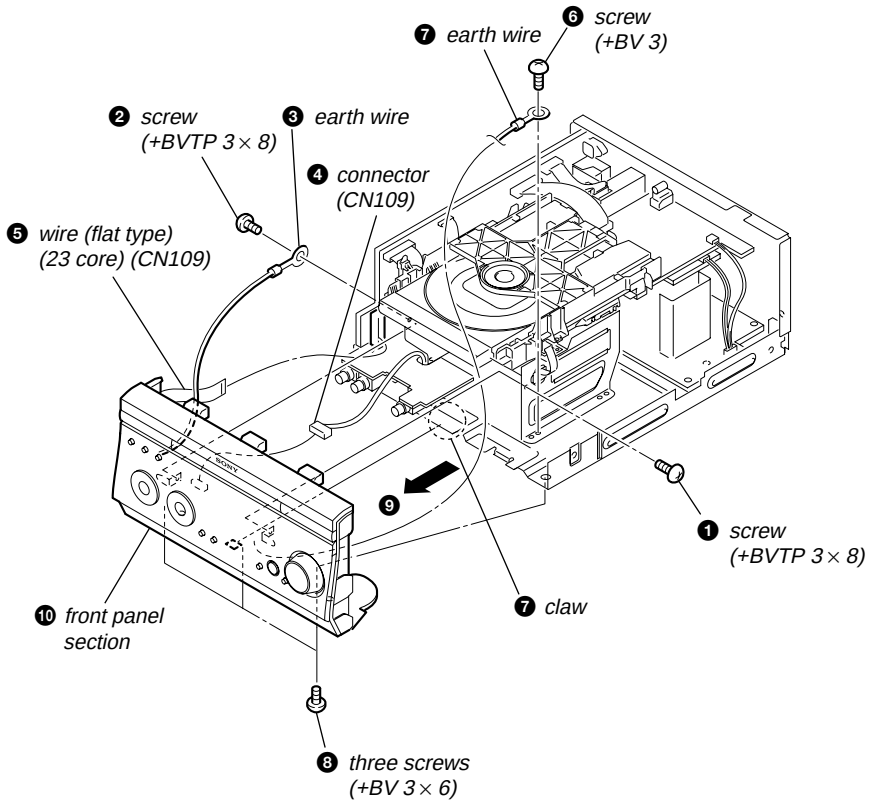

SET
3-2.CASE (Page 10)
3-3.FRONT PANEL ASSY (Page 10)
3-4.VR BOARD, FL BOARD, FUNCTION SW BOARD (Page 11)
3-5.4CH-VOL BOARD, VIDEO BOARD (Page 11)
3-7.DVD MECHANISM (CDM85-DVBU102) (Page 12)
3-6.MAIN BOARD, REGULATOR BOARD, MIC BOARD (Page 12)
3-9.TRAY (Page 13)
3-8.DMB10 BOARD (Page 13)
3-10.MS-203 BOARD (Page 14)
3-11.BASE UNIT (Page 15)
3-12.OPTICAL PICK-UP (KHM-310CAA/C2NP) (Page 15)

Note: Follow the disassembly procedure in the numerical order given.

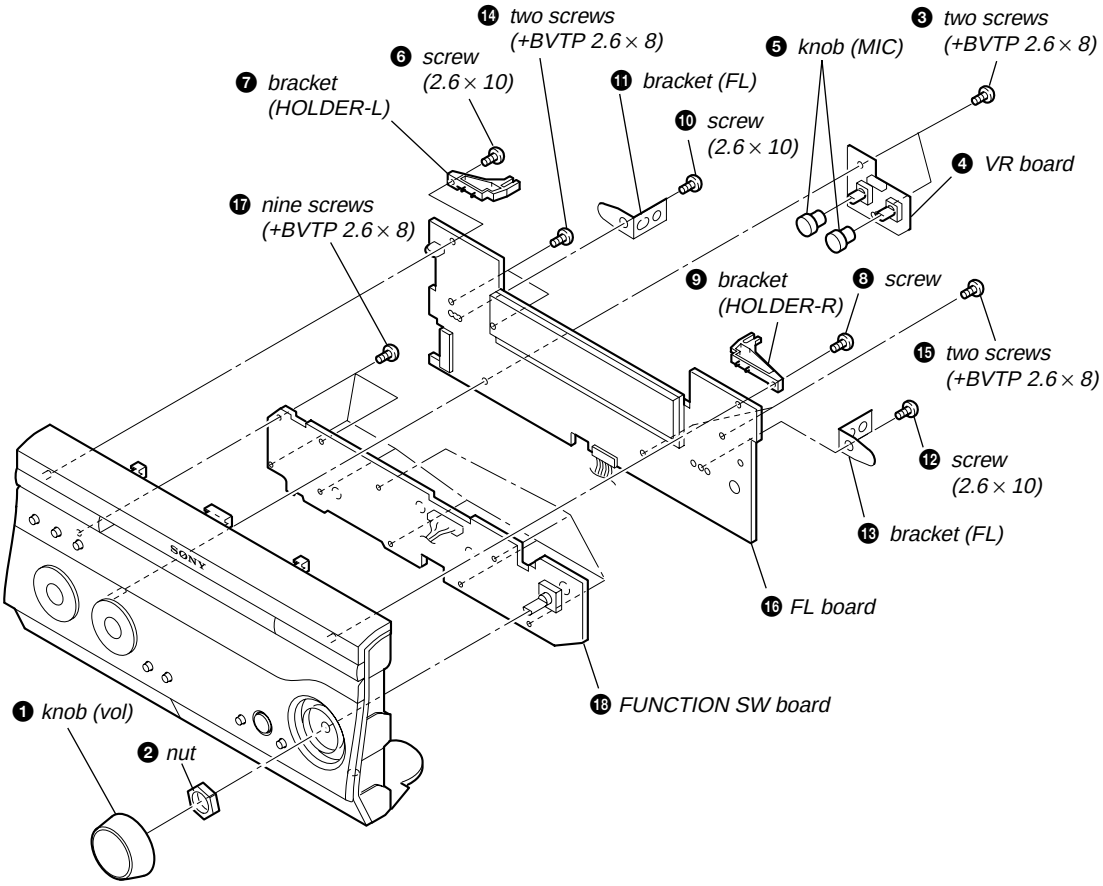
3-2. CASE



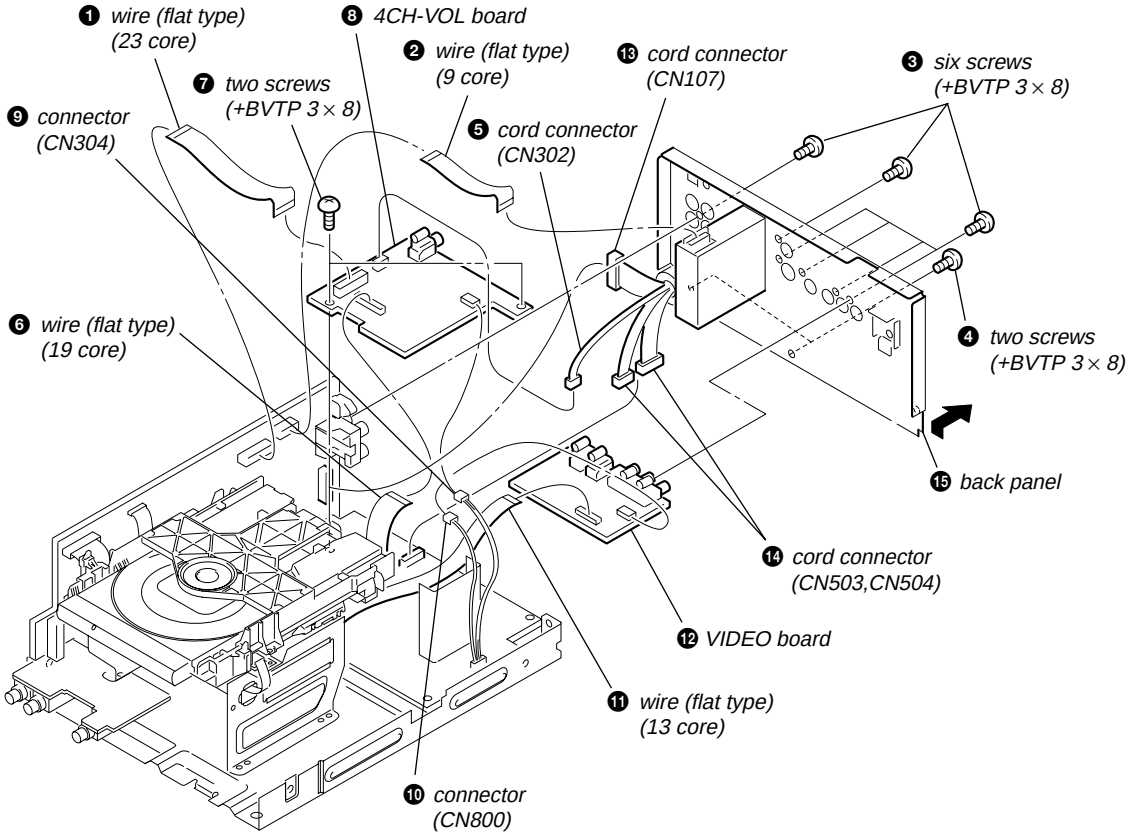
3-3. FRONT PANEL ASSY



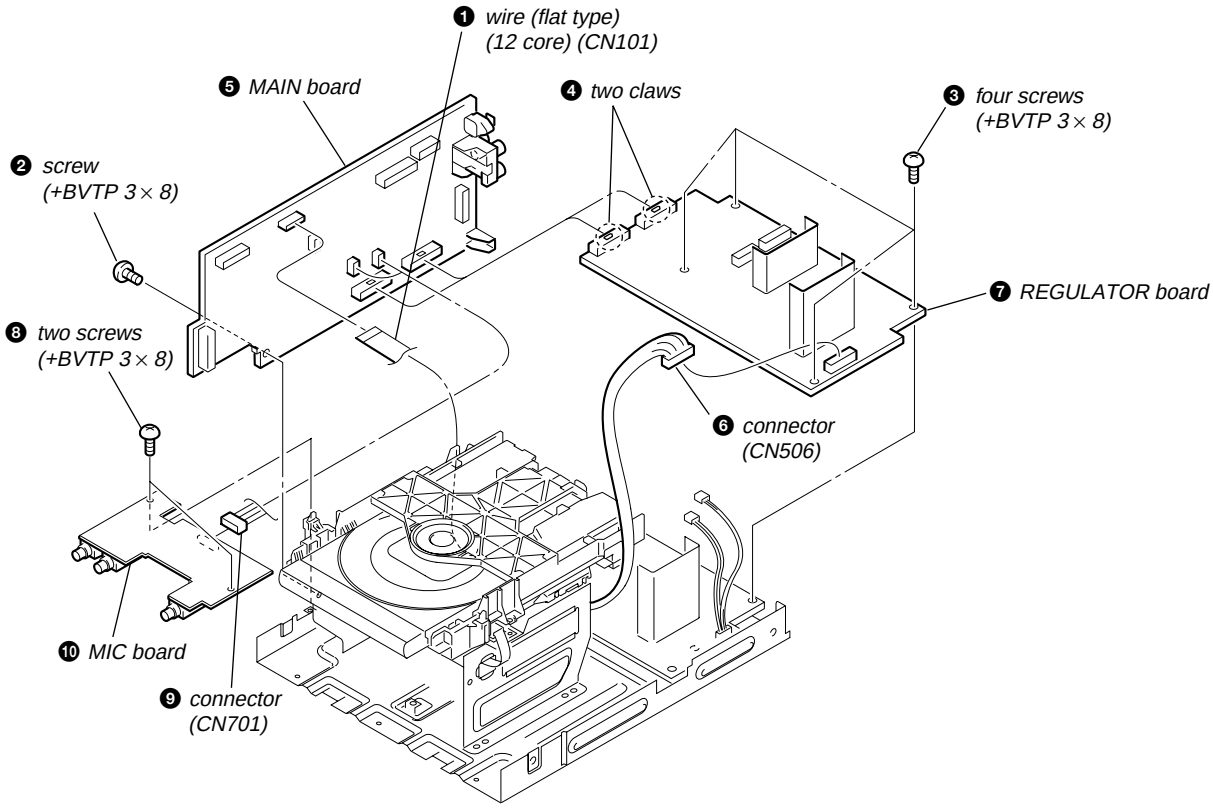
3-4. VR BOARD, FL BOARD, FUNCTION SW BOARD


⓮ two screws (+BVTP 2.6 × 8)
❻ screw (2.6 × 10)
❼ bracket (HOLDER-L)
⓫ bracket (FL)
❿ screw (2.6 × 10)
❺ knob (MIC)
❸ two screws (+BVTP 2.6 × 8)
❹ VR board
⓱ nine screws (+BVTP 2.6 × 8)
❾ bracket (HOLDER-R)
❽ screw
⓯ two screws (+BVTP 2.6 × 8)
⓬ screw (2.6 × 10)
⓭ bracket (FL)
⓰ FL board
⓲ FUNCTION SW board
❶ knob (vol)
❷ nut

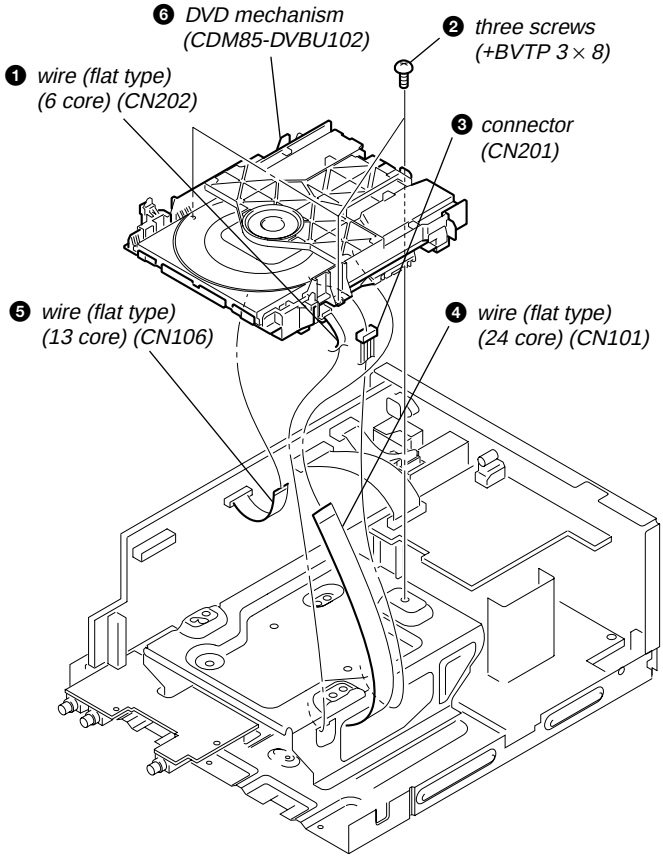
3-5. 4CH-VOL BOARD, VIDEO BOARD


❶ wire (flat type) (23 core)
❽ 4CH-VOL board
❷ wire (flat type) (9 core)
⓭ cord connector (CN107)
❸ six screws (+BVTP 3 × 8)
❼ two screws (+BVTP 3 × 8)
❾ connector (CN304)
❺ cord connector (CN302)
❻ wire (flat type) (19 core)
❹ two screws (+BVTP 3 × 8)
⓯ back panel
⓮ cord connector (CN503,CN504)
⓬ VIDEO board
⓫ wire (flat type) (13 core)
❿ connector (CN800)

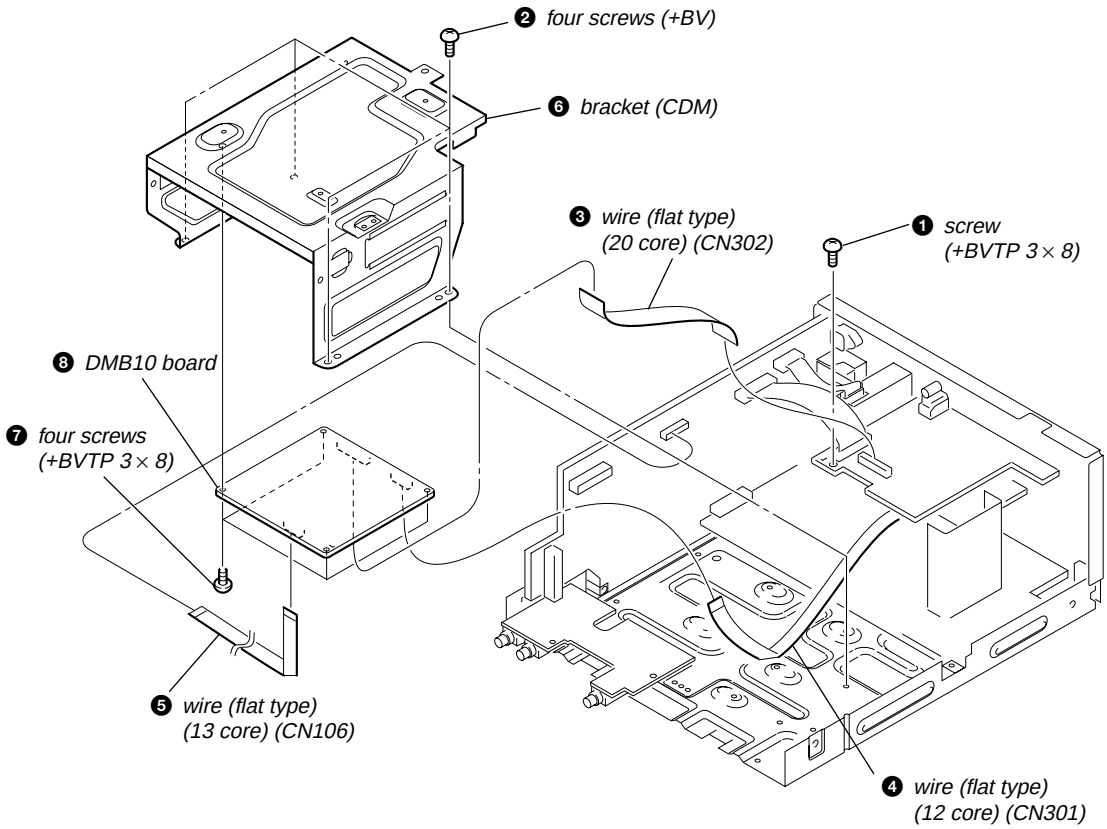
3-6. MAIN BOARD, REGULATOR BOARD, MIC BOARD



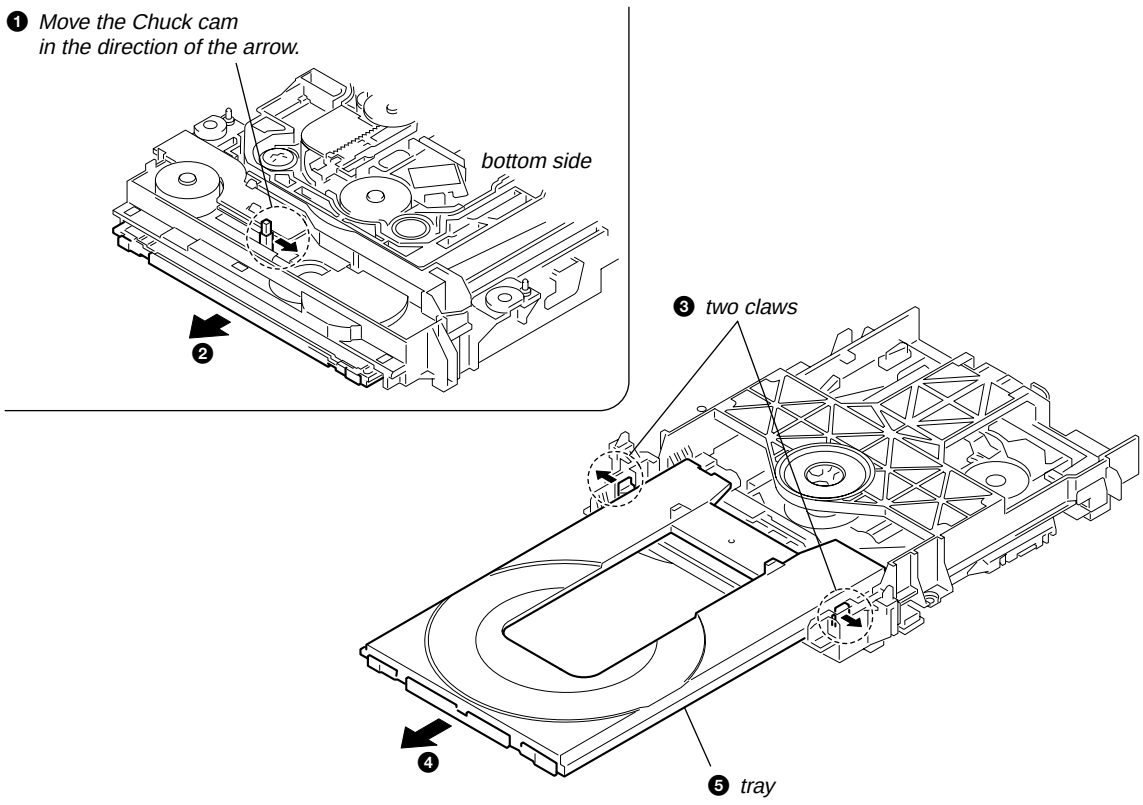
3-7. DVD MECHANISM (CDM85-DVBU102)



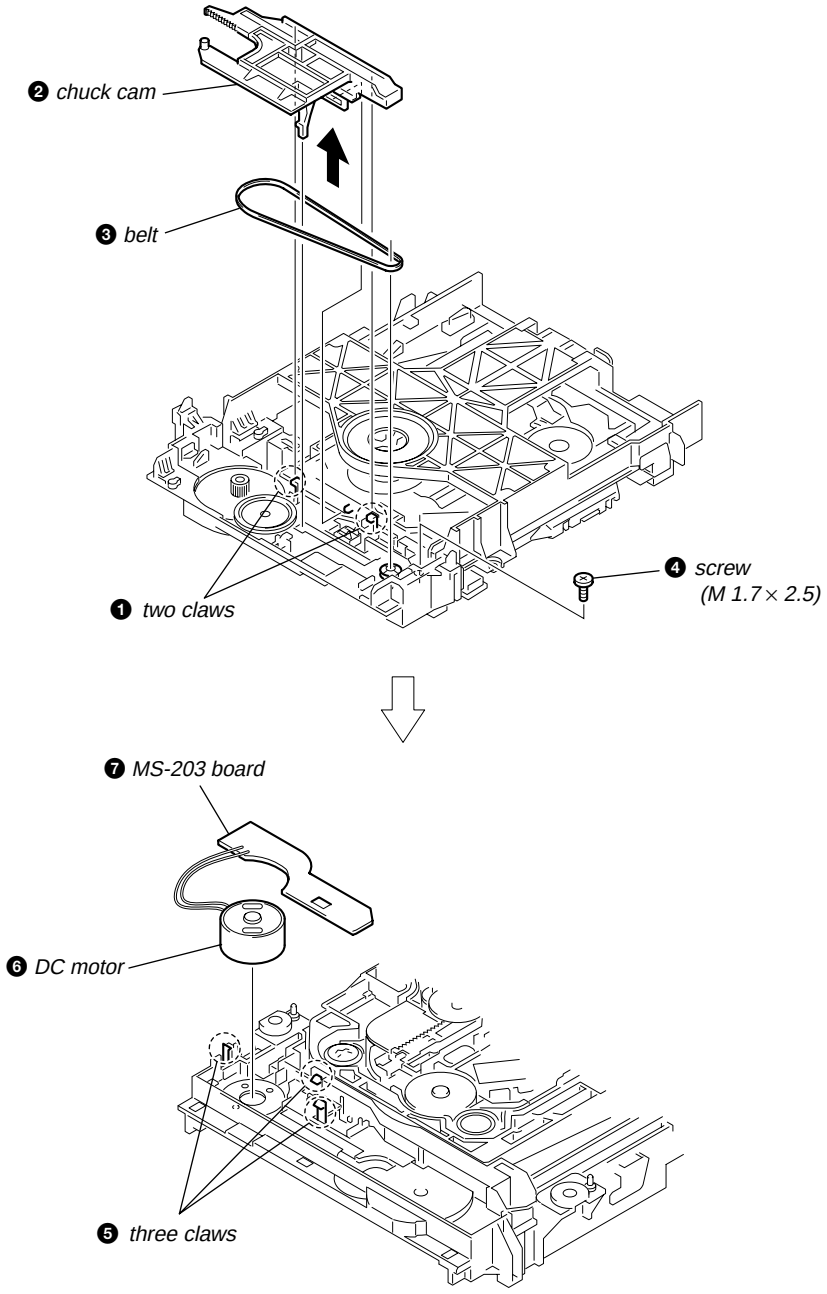
3-8. DMB10 BOARD



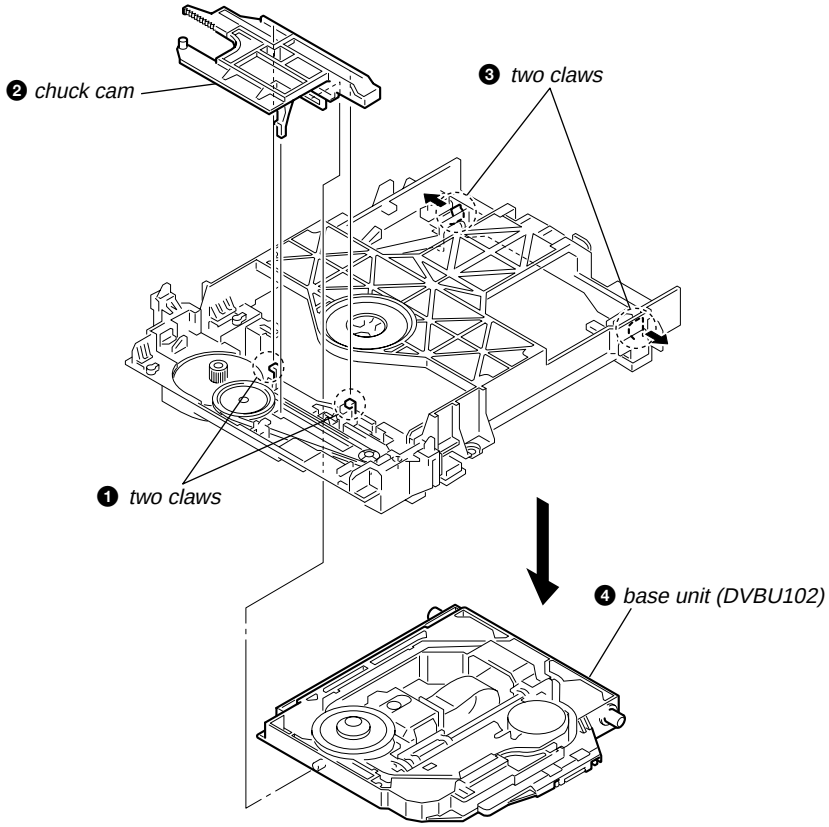
3-9 TRAY



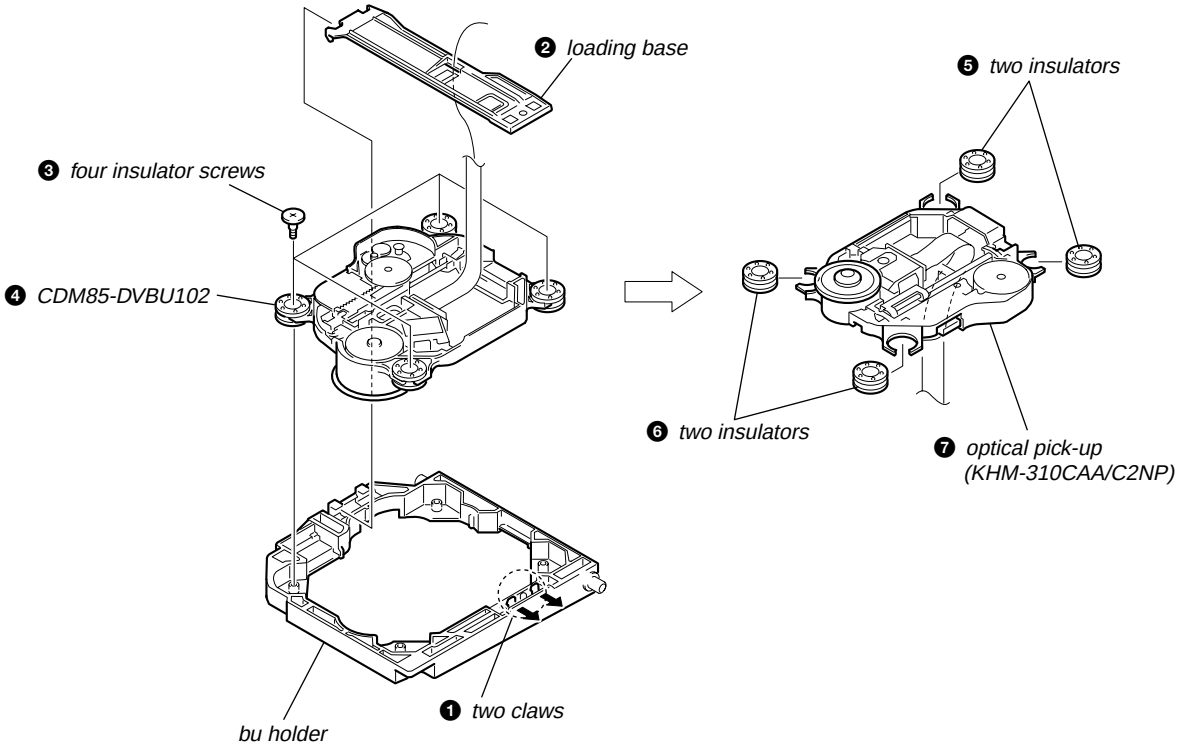
3-10. MS-203 BOARD



3-11. BASE UNIT



3-12 OPTICAL PICK-UP (KHM-310CAA/C2NP)



SECTION 4
TEST MODE

Note 1: Regarding the notification symbol "R"
Because the number of the operating buttons of this product are limited, some operations require use of the operating buttons of the remote commander, When a specific operation requires use of the operating buttons of the remote commander, "R" is added to the specific operating procedure in this manual. Example MENU/NO "R" The MENU/NO button of remote commander.

Note 2: Incorrect operations may be performed if the test mode is not entered properly.
In this case, press the I/⏻ button to turn the power off, and retry to enter the test mode.

[PANEL TEST MODE]

- This mode is used to check the fluorescent indicator tube, LEDs, keys, VOLUME jog, model, destination, software version and VACS level.

Procedure:

1. Press ■ button, REC PAUSE/START button and DSGX button simultaneously.
2. All LEDs and segments in fluorescent indicator tube are lighted up.
3. When you want to enter to the software version display mode, press ⏮◀◀ button. Each time ⏮◀◀ button is pressed, the display changes from tentative model name, software destination, MC version, SYS version, UI version, DVD version, ST version, TA version, TM version, TC version in this order, and returns to the model name display. The model name for this system is "WDZ5D".
4. When ▶▶▶⏭ button is pressed while the version numbers are being displayed except model and destination, the date of the software creation appears on the fluorescent indicator tube. When ▶▶▶⏭ button is pressed again, the display returns to the software version display. When ⏮◀◀ button is pressed while the date of the software creation is being displayed, the date of the software creation is displayed in the same order of software version display.
5. Press ▷ button, the key check mode is activated.
6. In the key check mode, the fluorescent indicator tube displays "K 0 V0".
   Each time a button is pressed, "K" value increases. However, once a button has been pressed, it is no longer taken into account.
   "V" value increases in the manner of 0,1, 2, 3 ... if VOLUME+ knob is turned clockwise, or it decreases in the manner of 0, 9, 8,7 ... if VOLUME– knob is turned counterclockwise.
7. When ❚❚ button is pressed after all LEDs and segments in fluorescent indicator tube light up, the fluorescent indicator tube displays "VACS A". A is VACS level which is triggered by signal level.
8. When ■ button is pressed after all LEDs and segments in fluorescent indicator tube light up, alternate segments in fluorescent indicator tube would light up. If you press ■ button again, another half of alternate segments in fluorescent indicator tube would light up. Pressing ■ button again would cause all segments lights off. Pressing ■ button again would cause all segments lights up.
9. To release from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[COMMON TEST MODE]

- This mode is used to check operations of the respective sections of Amplifier, Tuner, and Tape.

Procedure:

- To enter Common Test Mode

1. Press I/⏻ button to turn on the system.
2. Press ■ button, REC PAUSE/START button and EQ SELECT button simultaneously.
3. The TAPE A and B indicators flash on the fluorescent indicator tube. The function is changed to VIDEO.

- **Check of Amplifier**

1. Press EQ SELECT button repeatedly until the message "GEQ MAX" appears on the fluorescent indicator tube. GEQ increases to its maximum.
2. Press EQ SELECT button repeatedly until the message "GEQ MIN" appears on the fluorescent indicator tube. GEQ decreases to its minimum.
3. Press EQ SELECT button repeatedly until the message "GEQ FLAT" appears on the fluorescent indicator tube. GEQ set to flat.
4. When the VOLUME+ knob is turned clockwise even slightly, the sound volume increases to its maximum and the message "VOLUME MAX" appears on the fluorescent indicator tube.
5. When the VOLUME– knob is turned counterclockwise even slightly, the sound volume decreases to its minimum and the message "VOLUME MIN" appears on the fluorescent indicator tube.

- **Tape function**

1. When a tape is inserted in Deck B and recording is started, the function is changed to VIDEO automatically. When DSGX button is pressed during recording in function, ALC (Automatic Logic Control) is turned on.
2. During recording, press ⏮◀◀ will stop the recording and the function is changed to TAPE B and rewind the tape in Deck B until the recording start position and playback of the tape in Deck B is started. If the REC PAUSE/ START button is pressed for a pause and pressed again to resume recording during recording time, when the tape is rewind, the tape will be rewind until the position where the pause is applied.

- **AMS Test Mode**

1. Select the function "TAPE A" or "TAPE B".
2. Select Loop or Relay direction mode by pressing the PROGRESSIVE/DIRECTION button. Insert a test tape AMS-110A or AMS-120 to selected tape deck.
3. Press the CD SYNC button to enter the AMS test mode.
4. After the test tape is rewind to the beginning of the tape, the AMS+ is checked, and the mechanism is shut off after detecting the AMS signal twice.
5. Then the AMS- is checked and the mechanism is shut off after detecting the AMS signal twice.
6. When the check is complete, a message of either OK or NG appears on the fluorescent indicator tube.

- **To release from Common Test mode**

1. To release from this mode, press I/⏻ button.
2. The cold reset is enforced at the same time.

[COLD RESET]

- The cold reset reset all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press ■ button, CD SYNC button, and I/⏻ button simultaneously.
3. The message "COLD RESET" appears on the fluorescent indicator tube. Then, the fluorescent indicator tube becomes blank for a while, and the set is reset.

[VACS ON/OFF]

- This mode is used to switch on and off the VACS (Variable Attenuation Control System).

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press ■ button, REC PAUSE/START button and SOUND FIELD button simultaneously. The message "VACS OFF" or "VACS ON" appears on the fluorescent indicator tube.

[TUNER STEP CHANGE]

- The step interval of AM channels can be toggled between 9 kHz and 10 kHz. This mode is not available for Saudi Arabian and Russian models.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press TUNER/BAND button repeatedly to select the "AM".
3. Press I/⏻ button to turn off the system .
4. Press ■ button and I/⏻ button simultaneously. The system will turn on automatically. The message "AM 9k Step" or "AM 10k Step" appears on the fluorescent indicator tube and thus the channel step is changed.

[DVD SHIP MODE (WITH MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration and reset all data including preset data stored in the RAM to initial conditions during next time you plug in power supply. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Select DVD function.
3. Press ■ button, DVD button and I/⏻ button simultaneously. The system will power off automatically.
4. After the "STANDBY" blinking display finishes, the message "MECHA LOCK" appears on the fluorescent indicator tube and the DVD ship mode is set.

[DVD TRAY LOCK MODE]

- This mode let you lock the disc tray. When this mode is activated, the disc tray will not open when ⏏ button is pressed. The message "LOCKED" appears on the fluorescent indicator tube.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Select DVD function.
3. Press ■ button and ⏏ button simultaneously and hold down until the message "LOCKED" or "UNLOCKED" appears on the fluorescent indicator tube (around 5 seconds).

[DVD COLOR SYSTEM SWITCHING]

- This mode let you change the color system of the video output from PAL to NTSC or vice-versa. This mode is not available for Latin American and Russian models.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Select DVD function.
3. Press I/⏻ button to turn off the system.
4. Press ❚❚ button and I/⏻ button simultaneously. The system will power on automatically.
   The message "COLOR PAL" or "COLOR NTSC" appears on the fluorescent indicator tube.

[VIDEO/SAT SWITCHING]

- This mode let you switch from VIDEO to SAT and vice-versa.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Select VIDEO function.
3. Press VIDEO/SAT button and I/⏻ button simultaneously. The function will change to SAT. Press the same buttons again to change from SAT to VIDEO.

[REMOTE COMMANDER DISABLE MODE]

- This mode let you disable the remote commander reception. When this mode is activated, the system will not response if the button on the remote commander is pressed. The message "RM Disable" appears on the fluorescent indicator tube. Use this mode during aging to avoid disturbance. This mode is cancelled automatically when the system is turned off.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press ■ button, REC PAUSE/START button and PROGRESSIVE/DIRECTION button simultaneously. The message "SIRCS OFF" appears on the fluorescent indicator tube.

• To release from this mode

Press the same buttons again. The message "SIRCS ON" appears on the fluorescent indicator tube.

[AUTO TUNING MODE]

- This mode let you tuned in any radio station automatically without using the remote commander.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press TUNER/BAND button repeatedly to select the "FM" or "AM".
3. Press ■ button and TUNER/BAND button simultaneously and hold down until the "AUTO" lights up in the fluorescent indicator tube and the frequency indication starts to change. (around 3 seconds). Scanning stops automatically when a station is tuned in.

[SELECTOR MUTE RELEASE MODE]

- This mode let you output the audio signal during function other than DVD function when the DVD decoder has been disconnected. This system cannot output the audio signal in the normal condition if the DVD decoder is disconnected.

Procedure:

1. Press I/⏻ button to turn on the system.
2. Press ■ button, REC PAUSE/START button and VIDEO/SAT button simultaneously. The message "SEL MUTE OFF" appears on the fluorescent indicator tube.
3. Insert a microphone into the microphone jack. The audio signal is outputted.

• To release from this mode

Press I/⏻ button to turn off the system.

[DVD SERVICE MODE]

- This mode let you make diagnosis and adjustment easily by using the remote commander and the TV. The instructions, diagnostic results, etc. are given on the on-screen display.

Procedure to enter to DVD Service Mode:

1. Press I/⏻ button to turn on the system.
2. Select DVD function.
3. Press ■ button and ⏏ button simultaneously and then turn the VOLUME+ knob clockwise.
4. The message "SERVICE IN" appears on the fluorescent indicator tube and the Top Menu of Remocon Diagnosis Menu appears on the on-screen display on the TV. The model name and revision number is displayed at the bottom of the on-screen display.

```
Remocon Diagnosis Menu

0. External Chip Check
1. Servo Parameter Check
2. Drive Manual Operation
3. Emergency History
4. Version information
5. Video Level Adjustment

Model Name : WDZ5D-GA
IF-con     : Ver. 01.00 (0000)
Syscon     : Ver. 1.311
```

5. To execute each function, press its number by using numeric button on the remote commander.
6. To release from this mode, press I/⏻ button to turn off the system.

• Execute IOP Measurement

In order to execute mirror time adjustment, the following standard procedures must be followed.

1. From the Top Menu of Remocon Diagnosis Menu, select "2. Drive Manual Operation" by pressing the 2 "R" button on the remote commander. The following screen appears on the on-screen display.

```
Drive Manual Operation

1. Servo Control
2. Track/Layer Jump
3. Manual Adjustment
4. Tray Aging Mode
5. MIRR time adjust
0. Return to top Menu
```

2. Select "3. Manual Adjustment" by pressing the 3 "R" button on the remote commander. The following screen appears on the on-screen display.

```
Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eg boost Adjust:
6. Iop:
7. TRV. Level:
8. S curve(FE) Level:
9. RFL(PI) Level:
0. MIRR Time:

↑↓ Change Value
RETURN Return to previous menu
```

3. Select "6. Iop:" by pressing 6 "R" button on the remote commander.
4. Wait until a hexadecimal number appear in the on-screen display as below:

```
Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eg Boost Adjust:
6. Iop: (ED:)
7. TRV. Level:
8. S curve(FE) Level:
9. RFL(PI) Level:
0. MIRR Time:

↑↓ Change Value
RETURN Return to previous menu
```

5. Convert data from hexadecimal to decimal by using conversion table.
6. Press RETURN "R" button on the remote commander to return to previous menu.
7. Press 0 "R" button on the remote commander to return to the Top Menu of Remocon Diagnosis Menu.
8. Press I/⏻ button to turn off the system.

• Check Emergency History

To check the emergency history, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select "3. Emergency History" by pressing the 3 "R" button on the remote commander. The following screen appears on the on-screen display.

```
Emg. History Check

Laser Hours        CD    999h   59min
                   DVD   999h   59min

1.  01 05 04 04       00 92 46 00
    00 00 00 00       00 00 23 45
2.  02 02 01 01       00 A9 4B 00
    00 00 00 00       00 00 23 45

Next Next Page   Prev Prev Page
0 Return to Top Menu
```

2. You can check the total time when the laser is turned on during playback of DVD and CD from the above menu. The maximum time, which can be displayed are 999h 59min.

3. You can check the error code of latest 10 emergency history from the above menu. To view the previous or next page of emergency history, press [I◀◀ "R"] or [I◀◀ "R"] on the remote commander. The error code consists of

(a) Error Code

```
Example of Error code

1. [01] 05 04 04      00 92 46 00
   00 00 00 00        00 00 23 45
```

The meaning of error code is as below:
01: Communication error (No reply from syscon)
02: Syscon hung up
03: Power OFF request when syscon hung up
19: Thermal shutdown
24: MoveSledHome error
25: Mechanical move error (5 Changer)
26: Mechanical move stack error
30: DC motor adjustment error
31: DPD offset adjustment error
32: TE balance adjustment error
33. TE sensor adjustment error
34. TE loop gain adjustment error
35. FE loop gain adjustment error
36. Bad jitter after adjustment
40. Focus NG
42. Focus layer jump NG
52. Open kick spindle error
51: Spindle stop error
60: Focus on error
61: Seek fail error
62: Read Q data/ID error
70: Lead in data read fail
71: TOC read time out (CD)
80: Can't buffering
81: Unknown media type

(b) Parameter of error code
This is the detail of error code.

```
Example of Error code

1. 01 [05 04 04      00 92 46 00]
   [00 00 00 00      00 00] 23 45
```

(c) Time of error code
This is the laser time when an error occurred.

```
Example of Error code

1. 01 05 04 04      00 92 46 00
   00 00 00 00      00 00 [23 45]
```

To clear the Laser Hour
Press [DISPLAY "R"] button and then press [CLEAR "R"] button. The data for both CD and DVD data are reset.

```
Emg. History Check

Laser Hours        CD    0h    0min
                   DVD   0h    0min

1.  01 05 04 04      00 92 46 00
    00 00 00 00      00 00 23 45
2.  02 02 01 01      00 A9 4B 00
    00 00 00 00      00 00 23 45

[Next] Next Page   [Prev] Prev Page
[0] Return to Top Menu
```

To clear the Emergency History
Press [MENU "R"] button and then press [CLEAR "R"] button. The error code for all emergency history would be reset.

```
Emg. History Check

Laser Hours        CD    999h  59min
                   DVD   999h  59min

1.  00 00 00 00      00 00 00 00
    00 00 00 00      00 00 00 00
2.  00 00 00 00      00 00 00 00
    00 00 00 00      00 00 00 00

[Next] Next Page   [Prev] Prev Page
[0] Return to Top Menu
```

To return to the Top Menu of Remocon Diagnosis Menu
Press [0 "R"] button on the remote commander.

• Check Version Information
To check the version information, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select "4. Version Information" by pressing the [4 "R"] button on the remote commander. The following screen appears on the on-screen display.

```
Version information

Firm (Main) : Ver. xxxxx
Firm (Sub) : xxxxx
RISC : xxxxx
8032 : xxxxx
Audio DSP : xxxxx
Servo DSP : xxxxx

[0] Return to Top Menu
```

To return to the Top Menu of Remocon Diagnosis Menu, press [0 "R"] on the remote commander.

SECTION 5
DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Schematic Diagrams.
Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

☆ IC103 (EEP ROM) can not be replaced individually.
Replace it with DMB10 board assembly for service

- : B+ Line.
- : B– Line.
- : adjusment for repair.
- Power voltage is fed with DXA-WZ88D from external connector (SYSTEM CONTROL 1, 2).
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
  no mark : DVD STOP
- Circled numbers refer to waveforms.
- Signal path.
  - : AUDIO
  - : AUDIO IN
  - : VIDEO
  - : PB (TAPE)
  - : REC (TAPE)
  - : CD PLAY
  - : DVD PLAY
  - : SACD PLAY
  - : TUNER
  - : Y
  - : CHROMA
  - : COMPONENT VIDEO
  - : MIC
- Abbreviation

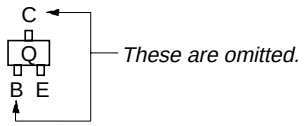
AR	: Argentine model.
AUS	: Australian model.
E3	: 240 V AC area in E model.
E12	: 220-240 V AC area in E model.
E13	: 220-230 V AC area in E model.
E15	: 220-240 V AC area in E model.
E51	: Chilean and peruvian models.
EA	: Saudi Arabia model.
PL	: Phillippines model.
SP	: Singapore and Malaysia models.
TH	: Thai model.

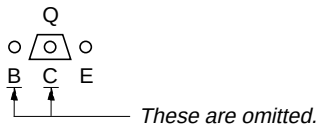
For Printed Wiring Boards.
Note:

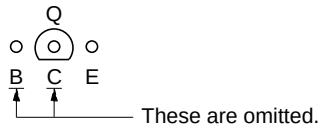
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Pattern from the side which enables seeing.

Caution:
Pattern face side: (SIDE B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (SIDE A) Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.

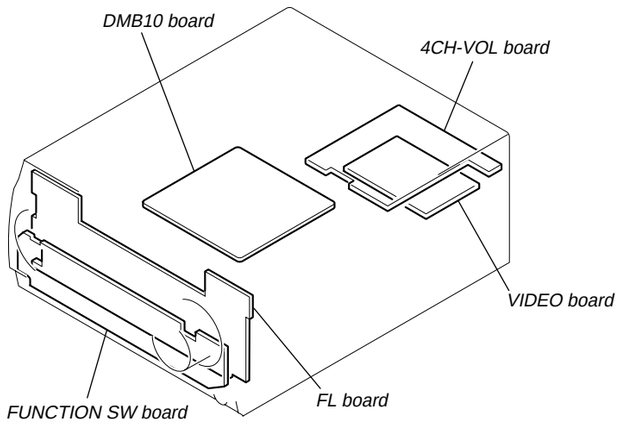


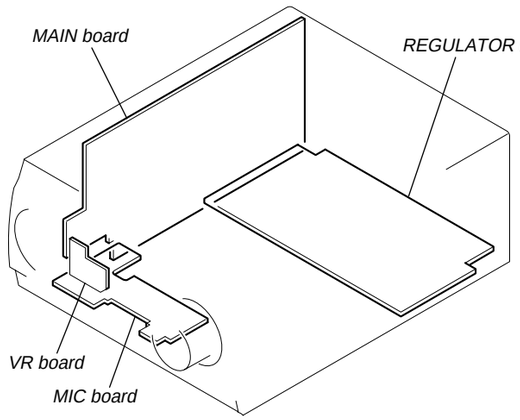


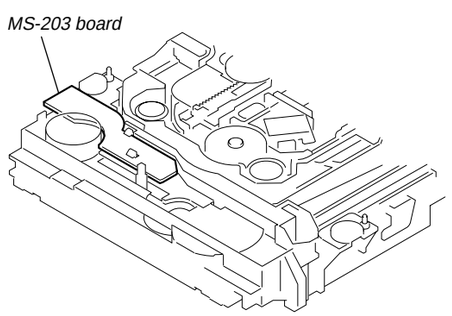


MEMO

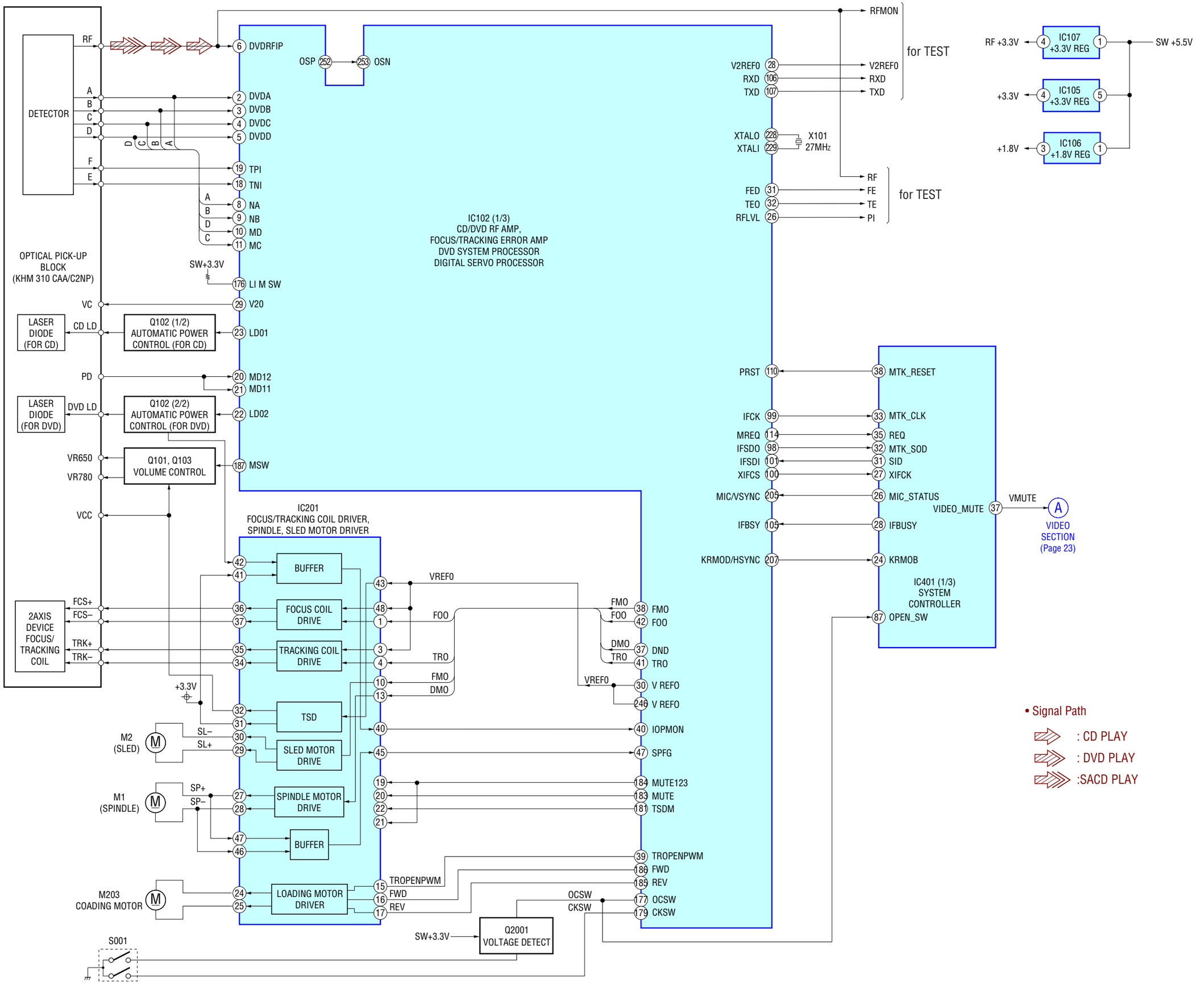
• Circuit Boards Location



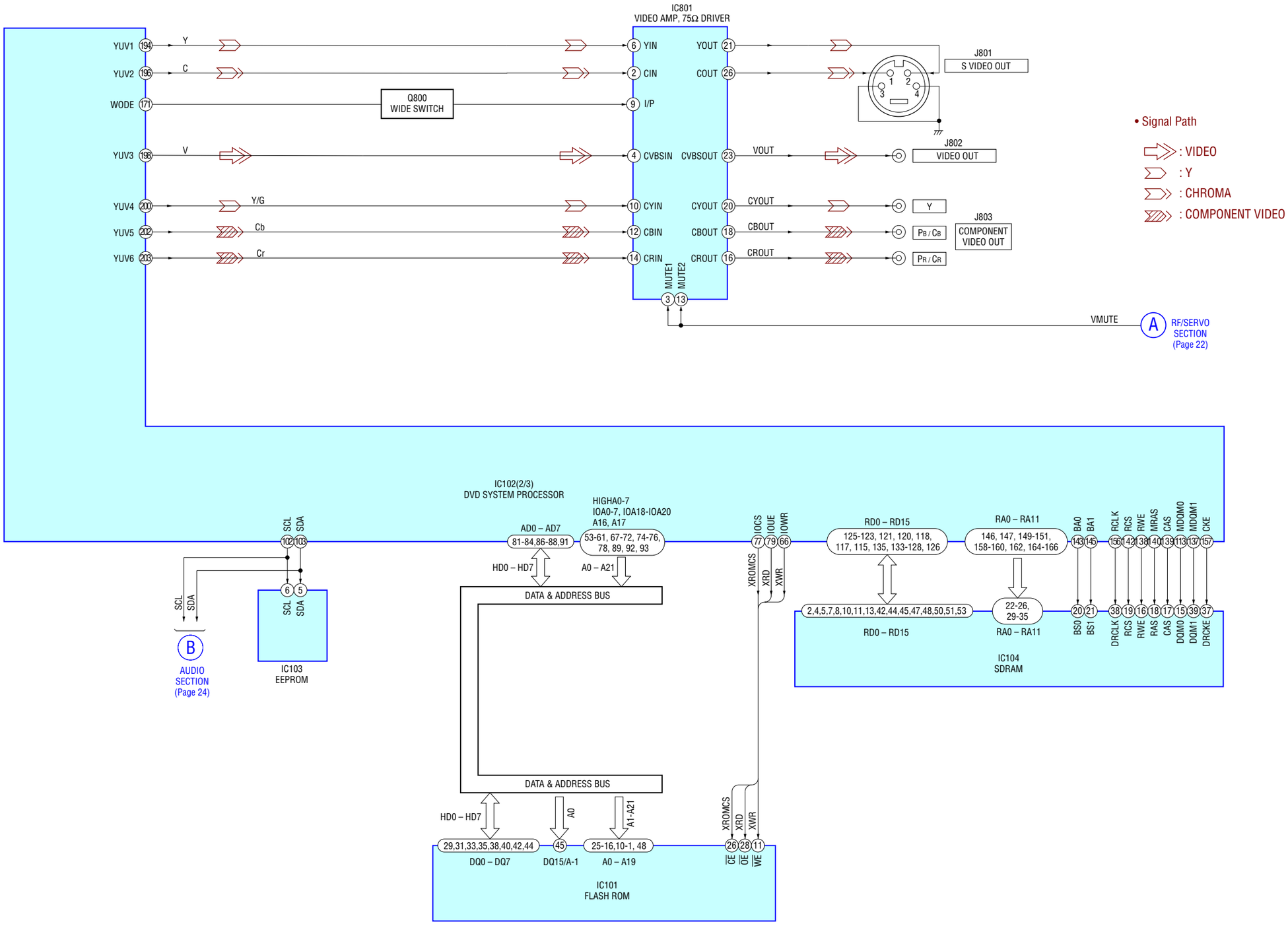




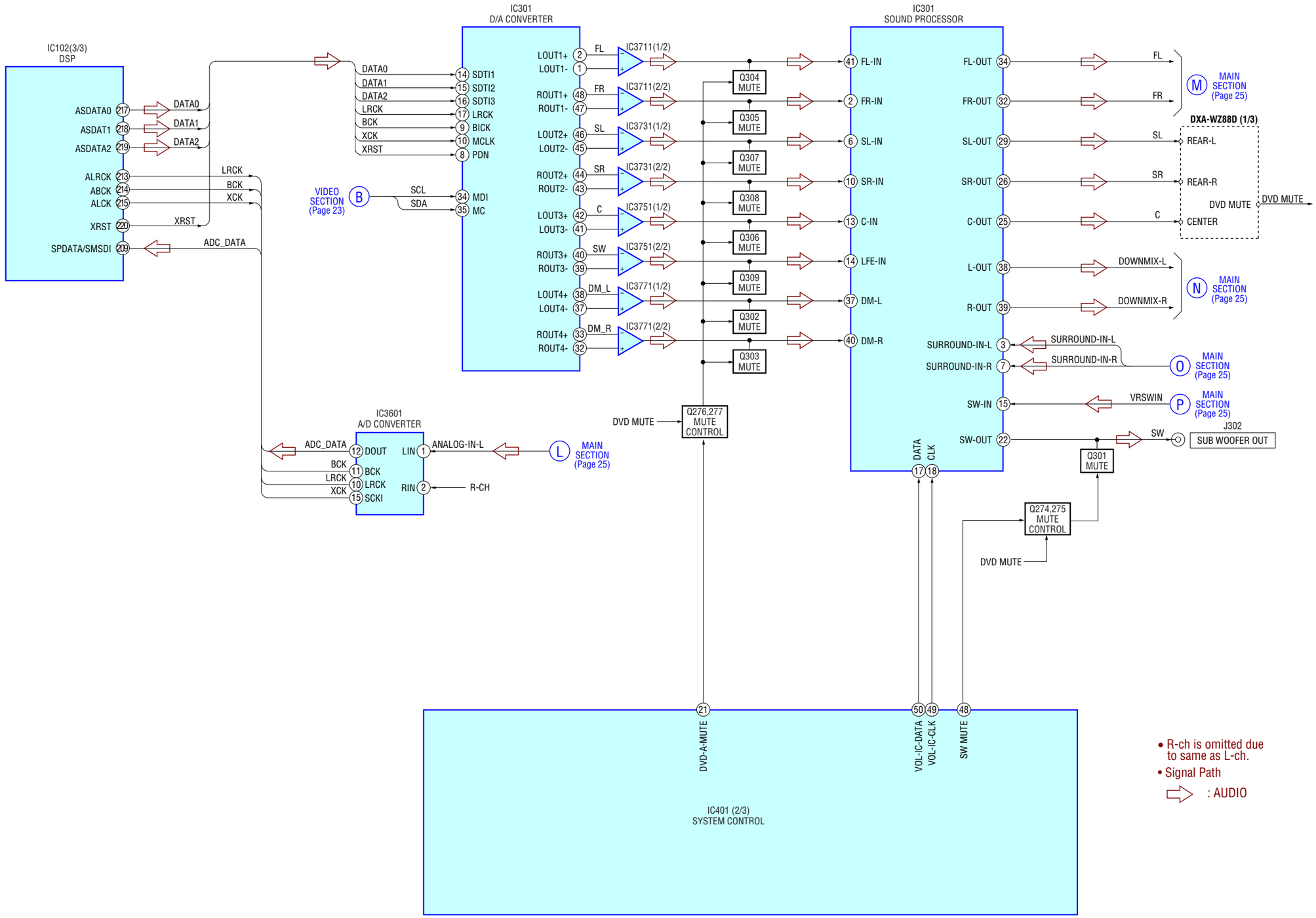
5-1. BLOCK DIAGRAM – RF/SERVO SECTION –



– VIDEO SECTION –

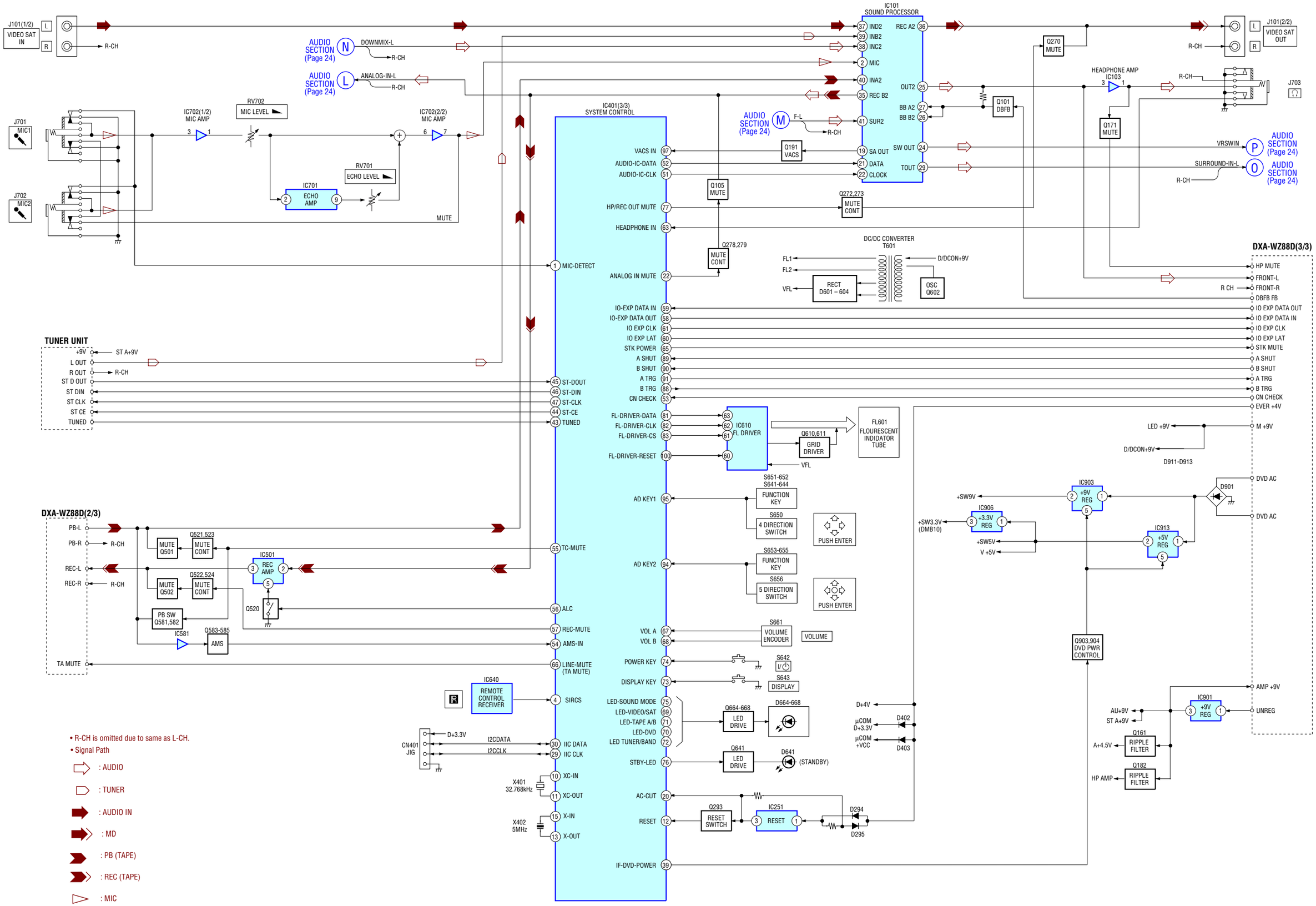


– AUDIO SECTION –



- R-ch is omitted due to same as L-ch.
- Signal Path
  ⇨ : AUDIO

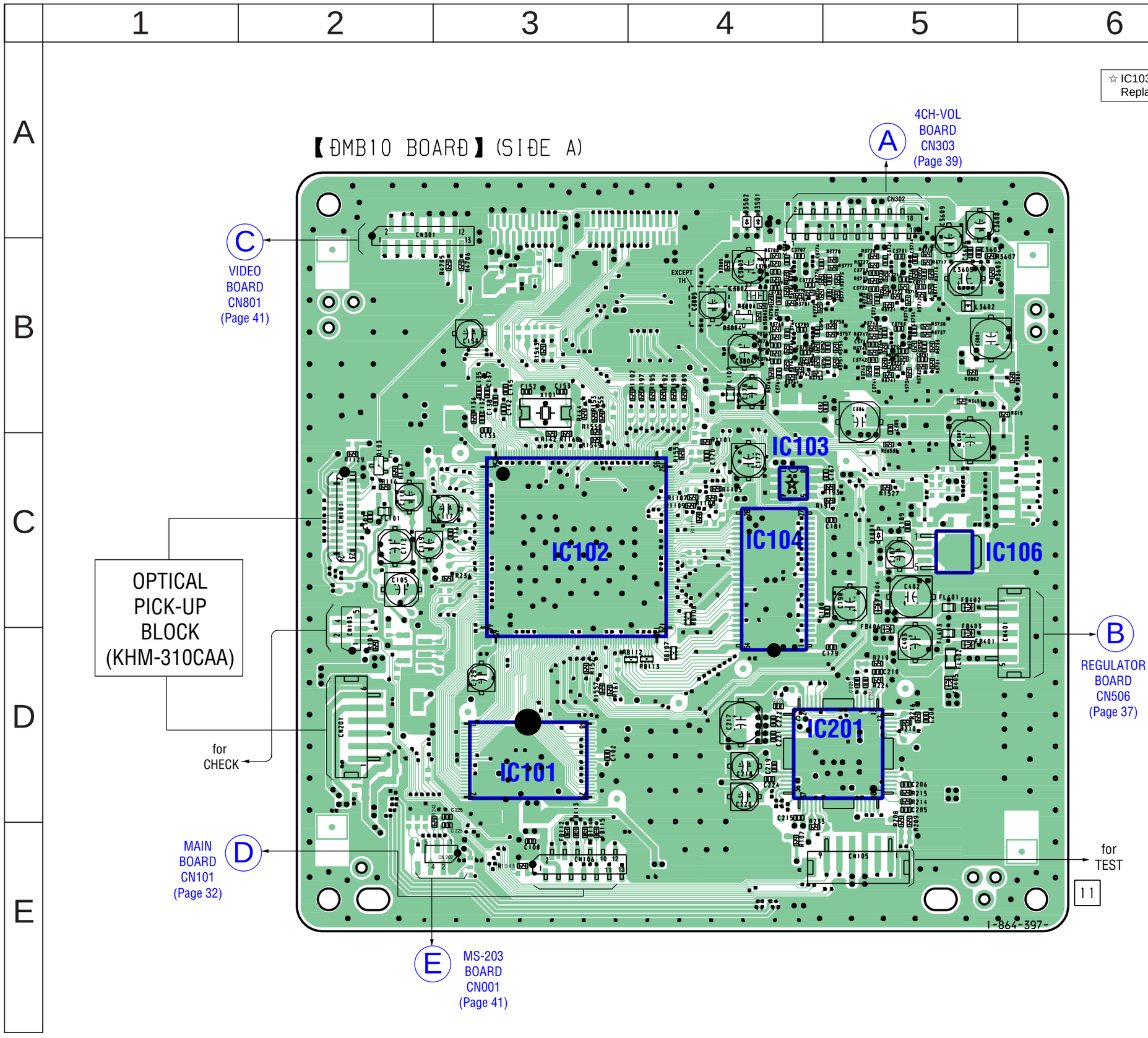
– MAIN SECTION –



5-2. PRINTED WIRING BOARD – DMB10 SECTION (SIDE A) –

• See page 21 for Circuit Boards Location. :Uses unleaded solder.

☆ IC103 (EEP ROM) can not be replaced individually.
Replace it with DMB10 board assembly for service



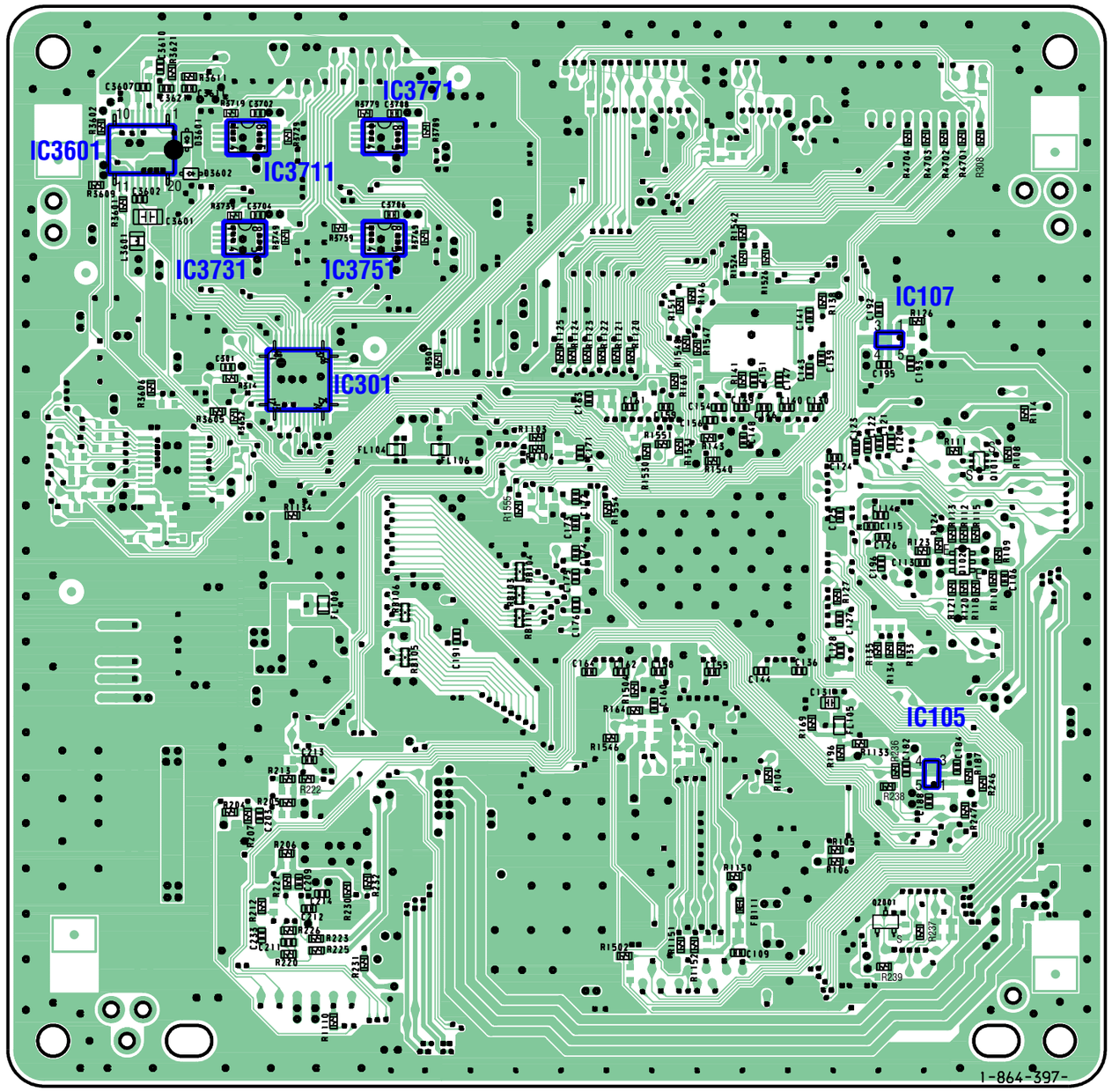
- **Semiconductor Location**

Ref. No.	Location
D1001	C-5
D3501	A-4
D3502	A-4
IC101	D-3
IC102	C-3
IC103	C-4
IC104	C-4
IC106	C-5
IC201	D-5
Q103	C-2
Q3801	B-4

5-3. PRINTED WIRING BOARD – DMB10 SECTION (SIDE B) –

• See page 21 for Circuit Boards Location. :Uses unleaded solder.

【DMB10 BOARD】(SIDE B)



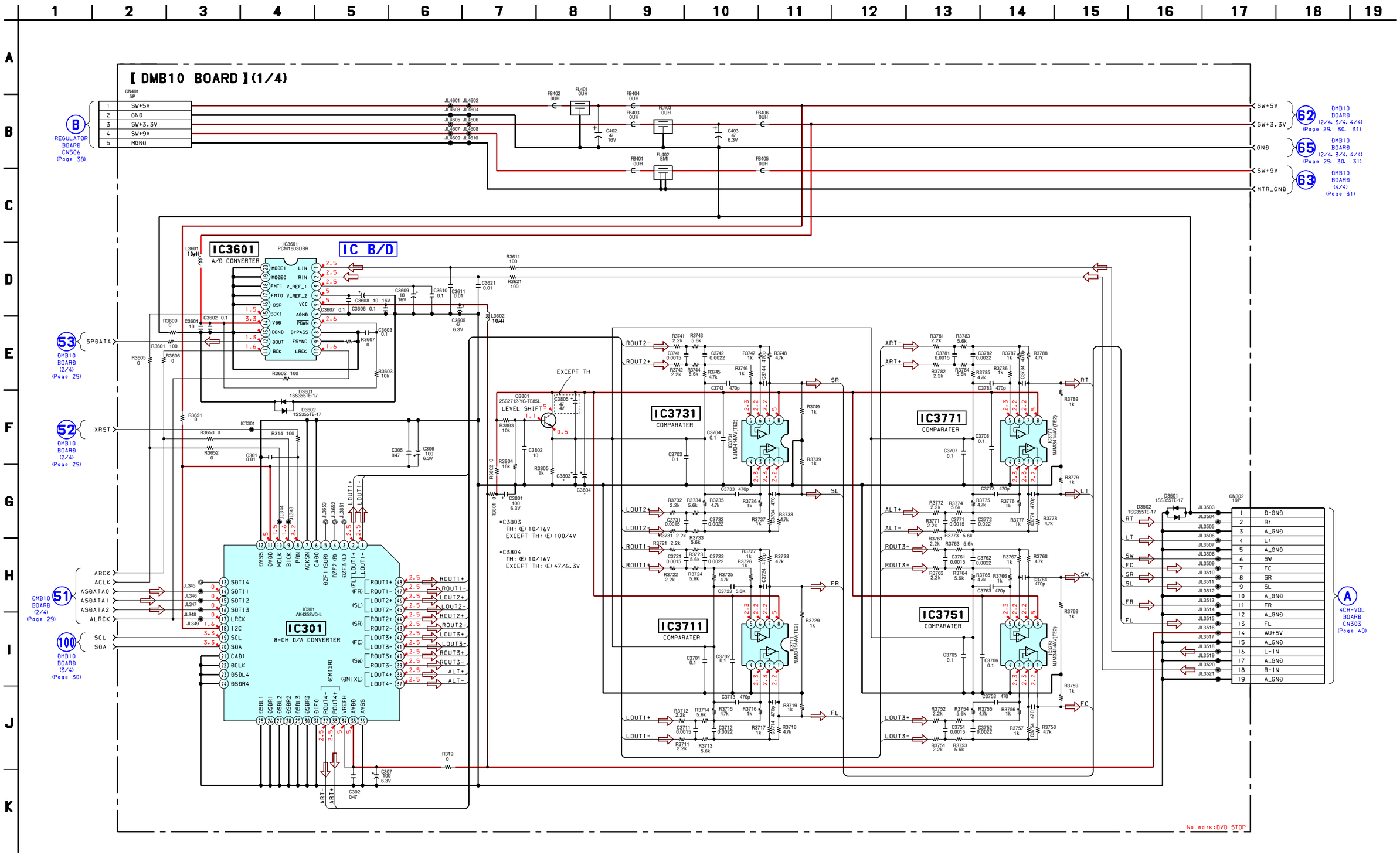
11

• **Semiconductor Location**

Ref. No.	Location
D3601	B-2
D3602	B-2
IC105	D-5
IC107	B-5
IC301	C-3
IC3601	B-2
IC3711	B-3
IC3731	B-3
IC3751	B-3
IC3771	B-3
Q101	C-5
Q102	C-5
Q2001	E-5

5-4. SCHEMATIC DIAGRAM – DMB10 SECTION (1/4) –

• See page 45 for IC Block Diagram.



5-5. SCHEMATIC DIAGRAM – DMB10 SECTION (2/4) –

• See page 43 for Waveforms. • See page 46 for IC Pin Function Description.

【 DMB10 BOARD 】(2/4)

IC107
+3.3V REG

IC102
CD/DVD RF AMP
FOCUS/TRACKING ERROR AMP
DVD SYSTEM PROCESSOR
DIGITAL SERVO PROCESSOR

OPTICAL PICK-UP BLOCK (KHM-310CAA)

VOLTAGE FOR IC102

(1)	GND	(21)	0	(41)	1.4	(61)	0	(81)	1.4	(101)	3.3	(121)	1.5	(141)	3.3	(161)	GND	(181)	0	(201)	GND	(221)	1.8	(241)	GND
(2)	1.7	(22)	3.3	(42)	1.4	(62)	GND	(82)	1.5	(102)	3.3	(122)	1.8	(142)	3	(162)	1.1	(182)	3.3	(202)	0.8	(222)	0	(242)	1.6
(3)	1.7	(23)	3.3	(43)	GND	(63)	1	(83)	1.2	(103)	3.3	(123)	1.3	(143)	1.2	(163)	GND	(183)	3.3	(203)	0.6	(223)	GND	(243)	1.1
(4)	1.7	(24)	3.3	(44)	NC	(64)	GND	(84)	1.2	(104)	0	(124)	1.4	(144)	GND	(164)	1.7	(184)	3.3	(204)	3.3	(224)	NC	(244)	3.3
(5)	1.7	(25)	NC	(45)	NC	(65)	3.3	(85)	GND	(105)	0	(125)	1	(145)	1	(165)	1.7	(185)	0	(205)	0	(225)	NC	(245)	1.3
(6)	1.7	(26)	1.2	(46)	3.3	(66)	3.3	(86)	1.5	(106)	3.3	(126)	0.3	(146)	0	(166)	1	(186)	0	(206)	3.3	(226)	GND	(246)	1.5
(7)	NC	(27)	GND	(47)	1.5	(67)	1.1	(87)	1.3	(107)	3.3	(127)	3.3	(147)	0.3	(167)	3.3	(187)	0	(207)	2.5	(227)	1.8	(247)	1.5
(8)	2	(28)	2.8	(48)	0	(68)	1.6	(88)	1.3	(108)	3.3	(128)	2.3	(148)	GND	(168)	NC	(188)	NC	(208)	NC	(228)	1.2	(248)	1.5
(9)	2	(29)	2	(49)	0	(69)	0.5	(89)	0	(109)	NC	(129)	2.3	(149)	1	(169)	3.1	(189)	3.3	(209)	0	(229)	1.2	(249)	GND
(10)	2	(30)	1.3	(50)	0	(70)	0.6	(90)	NC	(110)	3	(130)	1.9	(150)	2.4	(170)	0	(190)	NC	(210)	NC	(230)	0	(250)	NC
(11)	2	(31)	1.3	(51)	NC	(71)	2.6	(91)	1.8	(111)	NC	(131)	1.6	(151)	1.3	(171)	0	(191)	1.3	(211)	NC	(231)	0	(251)	NC
(12)	NC	(32)	1.3	(52)	1.8	(72)	1.3	(92)	2	(112)	NC	(132)	1.3	(152)	1.8	(172)	0	(192)	NC	(212)	3.3	(232)	GND	(252)	1.5
(13)	NC	(33)	1.3	(53)	1.9	(73)	3.3	(93)	2	(113)	5	(133)	1.2	(153)	NC	(173)	1.8	(193)	GND	(213)	1.6	(233)	1.6	(253)	1.5
(14)	NC	(34)	NC	(54)	1.9	(74)	1.5	(94)	GND	(114)	2.6	(134)	GND	(154)	NC	(174)	3.3	(194)	0	(214)	1.6	(234)	3.3	(254)	1
(15)	NC	(35)	NC	(55)	1.9	(75)	1.5	(95)	NC	(115)	2.3	(135)	1.4	(155)	3.3	(175)	GND	(195)	3.3	(215)	1.6	(235)	0	(255)	1
(16)	NC	(36)	NC	(56)	1.7	(76)	0	(96)	NC	(116)	GND	(136)	NC	(156)	0.5	(176)	0	(196)	0	(216)	GND	(236)	0	(256)	3.3
(17)	NC	(37)	1.4	(57)	2	(77)	0	(97)	1.8	(117)	0.4	(137)	2.9	(157)	0.5	(177)	3.3	(197)	GND	(217)	0	(237)	0	(257)	
(18)	2	(38)	1.4	(58)	0.8	(78)	2	(98)	0	(118)	1.8	(138)	3.3	(158)	0	(178)	NC	(198)	0	(218)	0	(238)	0	(258)	
(19)	2	(39)	0	(59)	0.8	(79)	0	(99)	3.3	(119)	GND	(139)	3.1	(159)	0	(179)	3.3	(199)	3.3	(219)	0	(239)	3.3	(259)	
(20)	0	(40)	1.4	(60)	1.5	(80)	3.3	(100)	3.3	(120)	1.2	(140)	3	(160)	0	(180)	NC	(200)	0	(220)	0	(240)	1.4	(260)	

5-6. SCHEMATIC DIAGRAM – DMB10 SECTION (3/4) –

☆ IC103 (EEP ROM) can not be replaced individually.
Replace it with DMB10 board assembly for service

【 DMB10 BOARD 】(3/4)

IC101
FLASH ROM

IC103
EEP ROM

IC104
SDRAM

IC105
+3.3V REG

IC106
+1.8V REG

91 DMB10 BOARD (2/4) (Page 29)

92 DMB10 BOARD (2/4) (Page 29)

D MAIN BOARD (1/2) CN101 (Page 33)

71 DMB10 BOARD (4/4) (Page 31)

100 DMB10 BOARD (1/4) (Page 28)

101 DMB10 BOARD (2/4) (Page 29)

62 DMB10 BOARD (1/4, 2/4, 4/4) (Page 28, 29, 31)

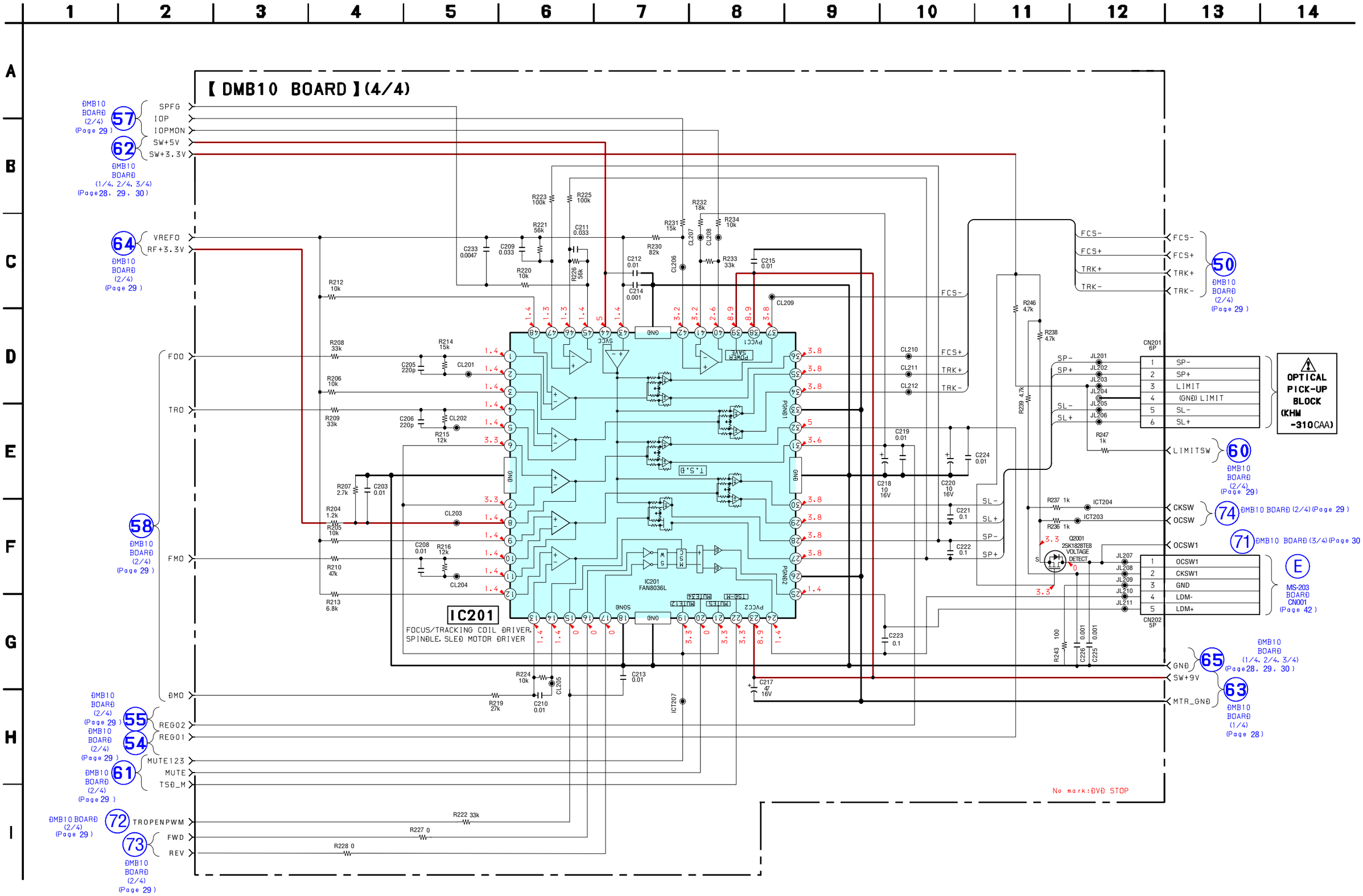
59 DMB10 BOARD (2/4) (Page 29)

65 DMB10 BOARD (1/4, 2/4, 4/4) (Page 28, 29, 31)

56 DMB10 BOARD (2/4) (Page 29)

No mark:DVD STOP

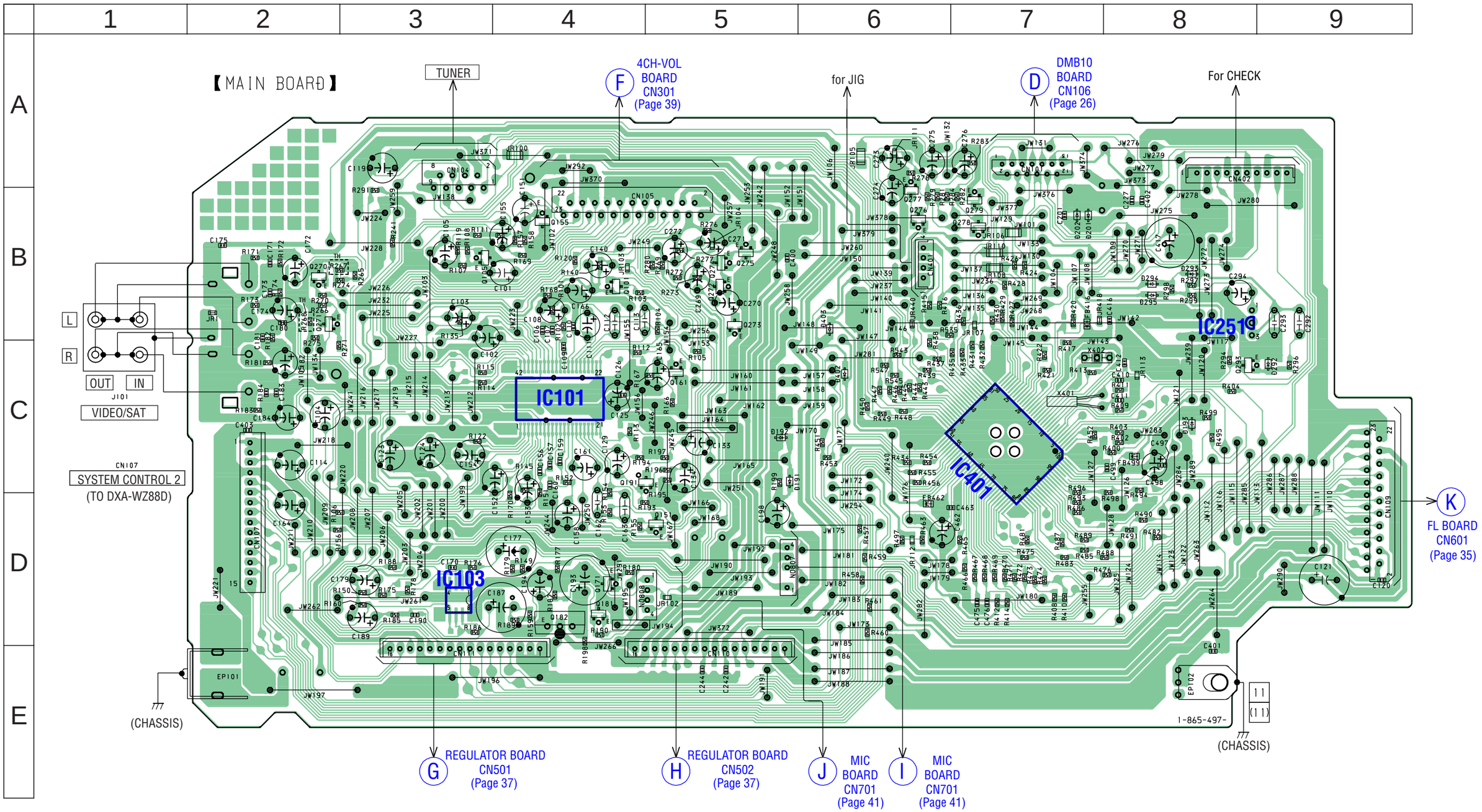
5-7. SCHEMATIC DIAGRAM – DMB10 SECTION (4/4) –



5-8. PRINTED WIRING BOARD – MAIN SECTION –

• See page 21 for Circuit Boards Location.

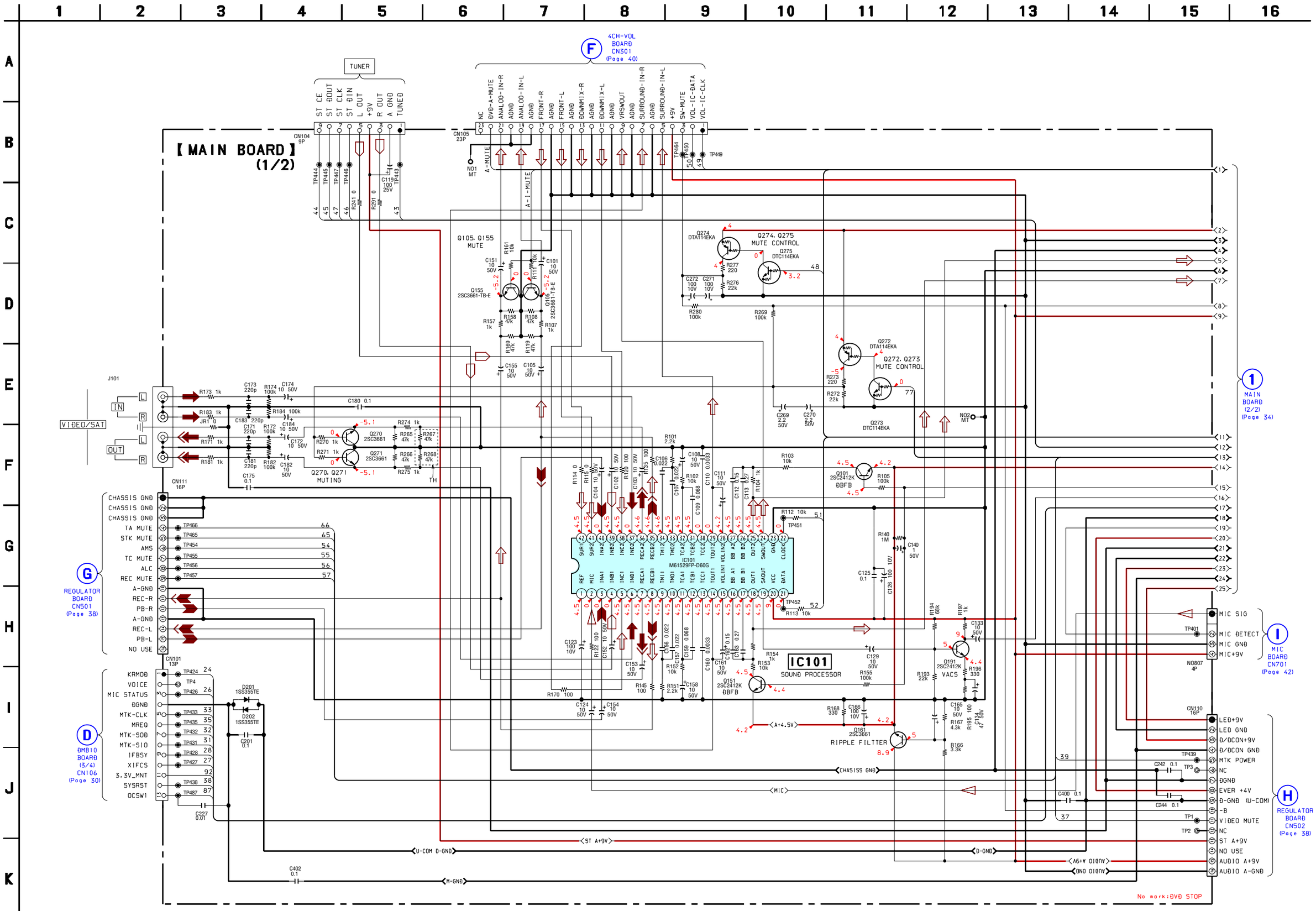
:Uses unleaded solder.



• **Semiconductor Location**

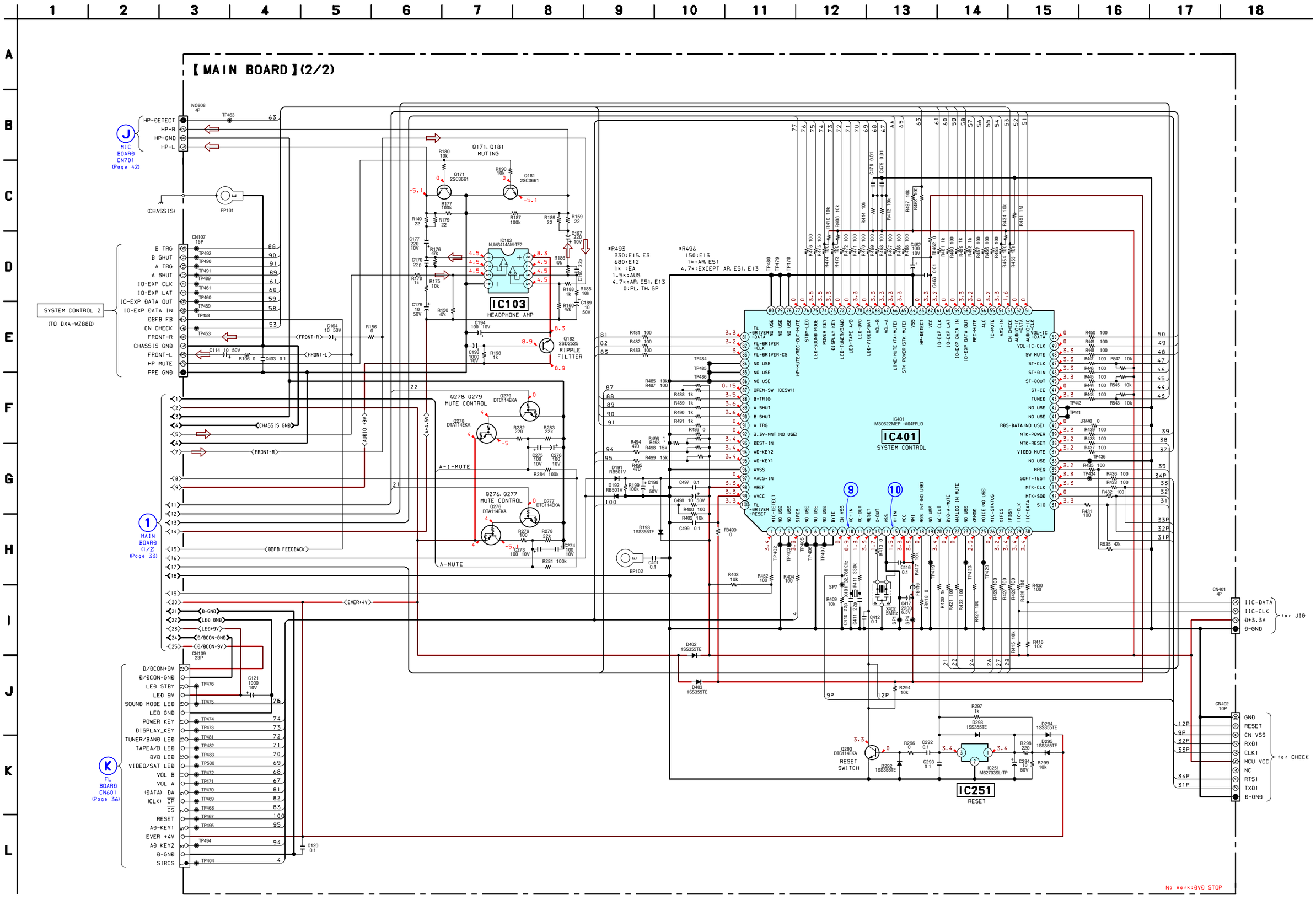
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D191	D-5	D295	B-8	Q101	B-4	Q191	C-4	Q277	B-6
D192	D-5	D402	B-6	Q105	B-3	Q270	B-2	Q278	B-7
D193	C-8	D403	B-6	Q151	C-4	Q271	B-2	Q279	B-7
D201	B-7			Q155	B-4	Q272	B-5	Q293	B-8
D202	B-7	IC101	C-4	Q161	C-5	Q273	B-5		
D292	C-8	IC103	D-3	Q171	D-4	Q274	B-5		
D293	C-8	IC251	B-8	Q181	D-4	Q275	B-5		
D294	B-8	IC401	C-7	Q182	D-4	Q276	B-6		

5-9. SCHEMATIC DIAGRAM – MAIN SECTION (1/2) –



5-10. SCHEMATIC DIAGRAM – MAIN SECTION (2/2) –

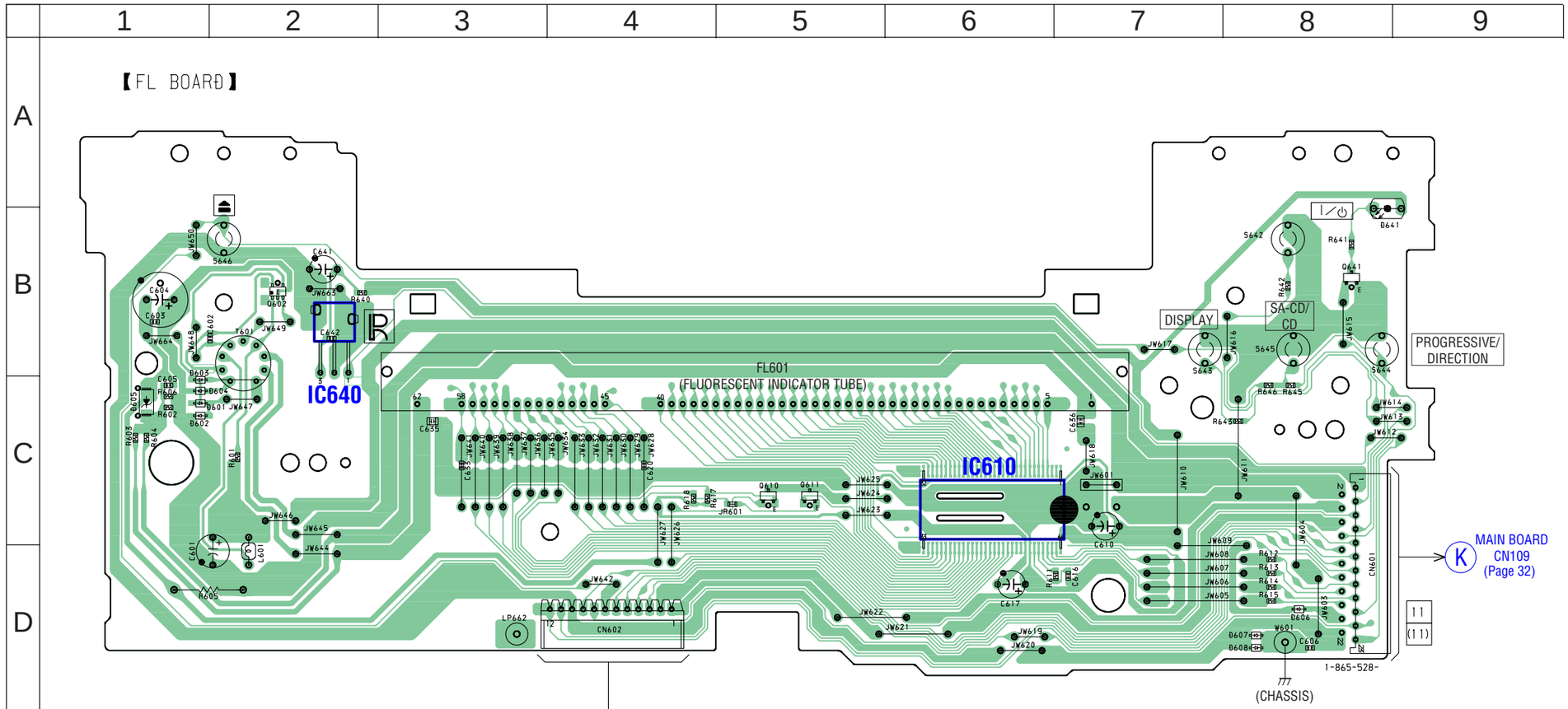
• See page 43 for Waveforms. • See page 51 for IC Pin Function Description.



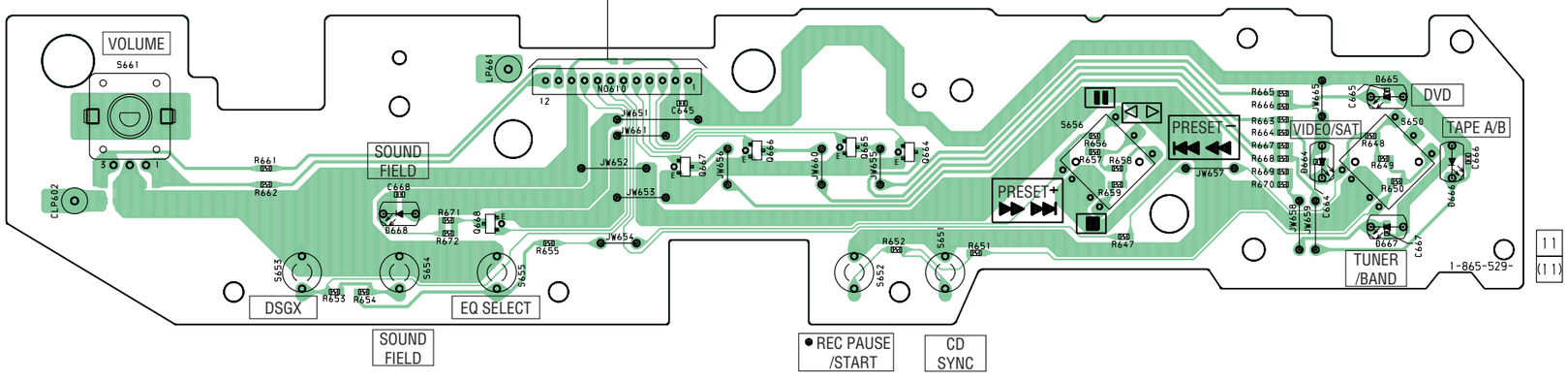
5-11. PRINTED WIRING BOARDS – FL/FUNCTION SW SECTION –

• See page 21 for Circuit Boards Location. :Uses unleaded solder.

【FL BOARD】



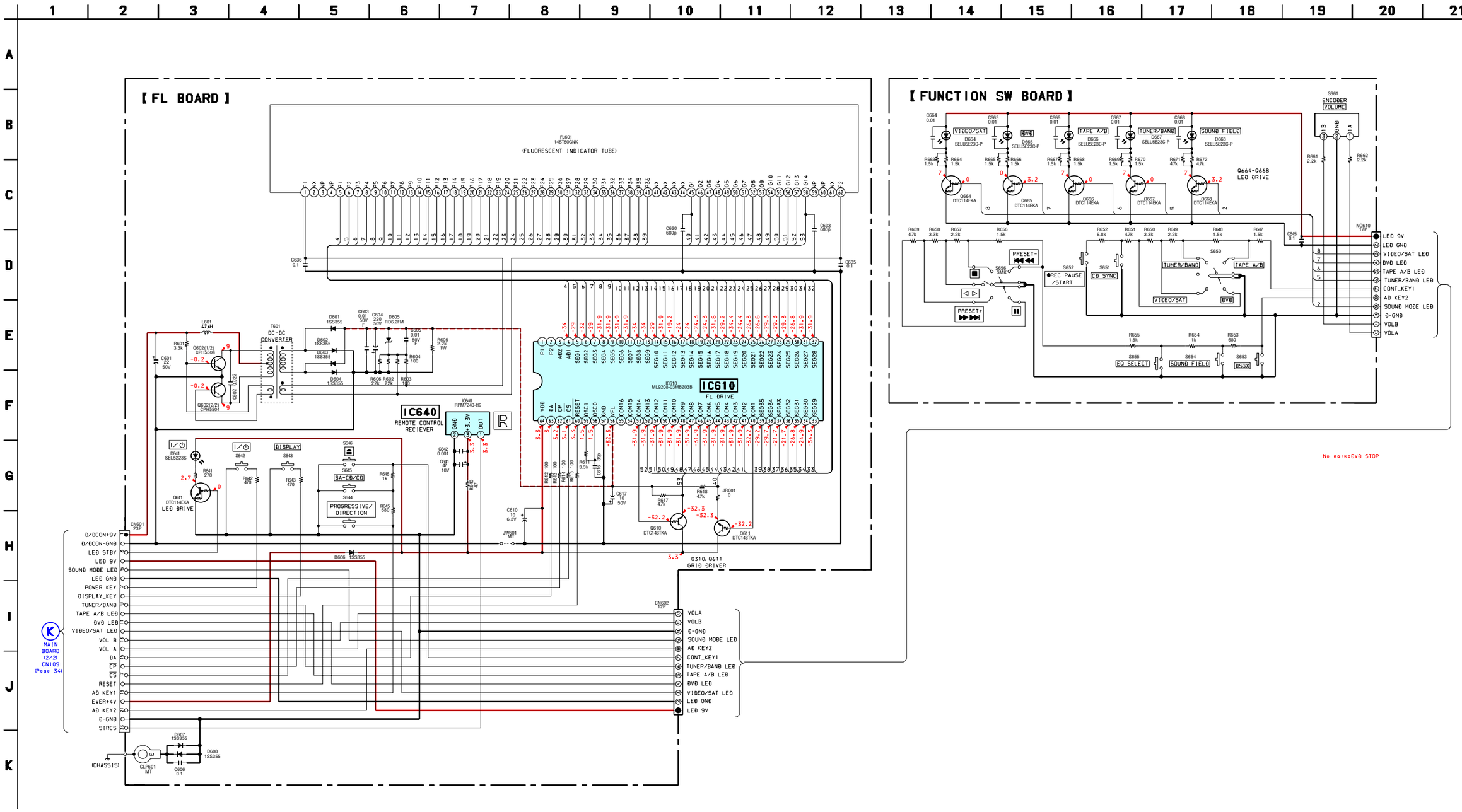
【FUNCTION SW BOARD】



- **Semiconductor Location**

Ref. No.	Location
D601	C-2
D602	C-2
D603	C-2
D604	C-2
D605	C-2
D606	D-8
D607	D-8
D608	D-8
D641	B-8
D664	F-7
D665	F-5
D666	F-5
D667	F-5
D668	G-3
IC610	C-6
IC640	B-2
Q602	B-2
Q610	C-5
Q611	C-5
Q641	B-8
Q664	F-5
Q665	F-5
Q666	F-5
Q667	F-4
Q668	G-3

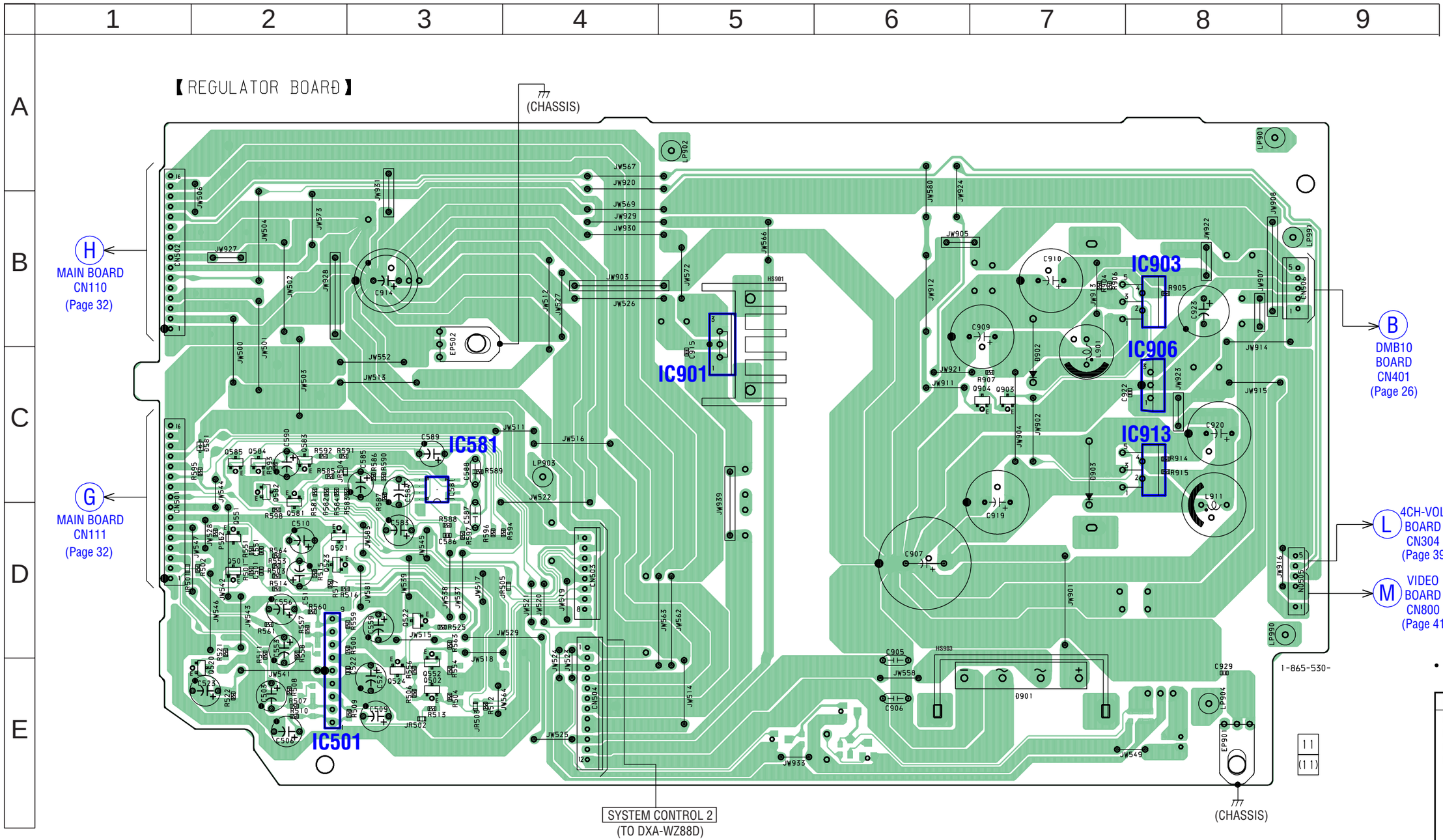
5-12. SCHEMATIC DIAGRAM – FL/FUNCTION SW SECTION –



5-13. PRINTED WIRING BOARD – REGULATOR SECTION –

• See page 21 for Circuit Boards Location.

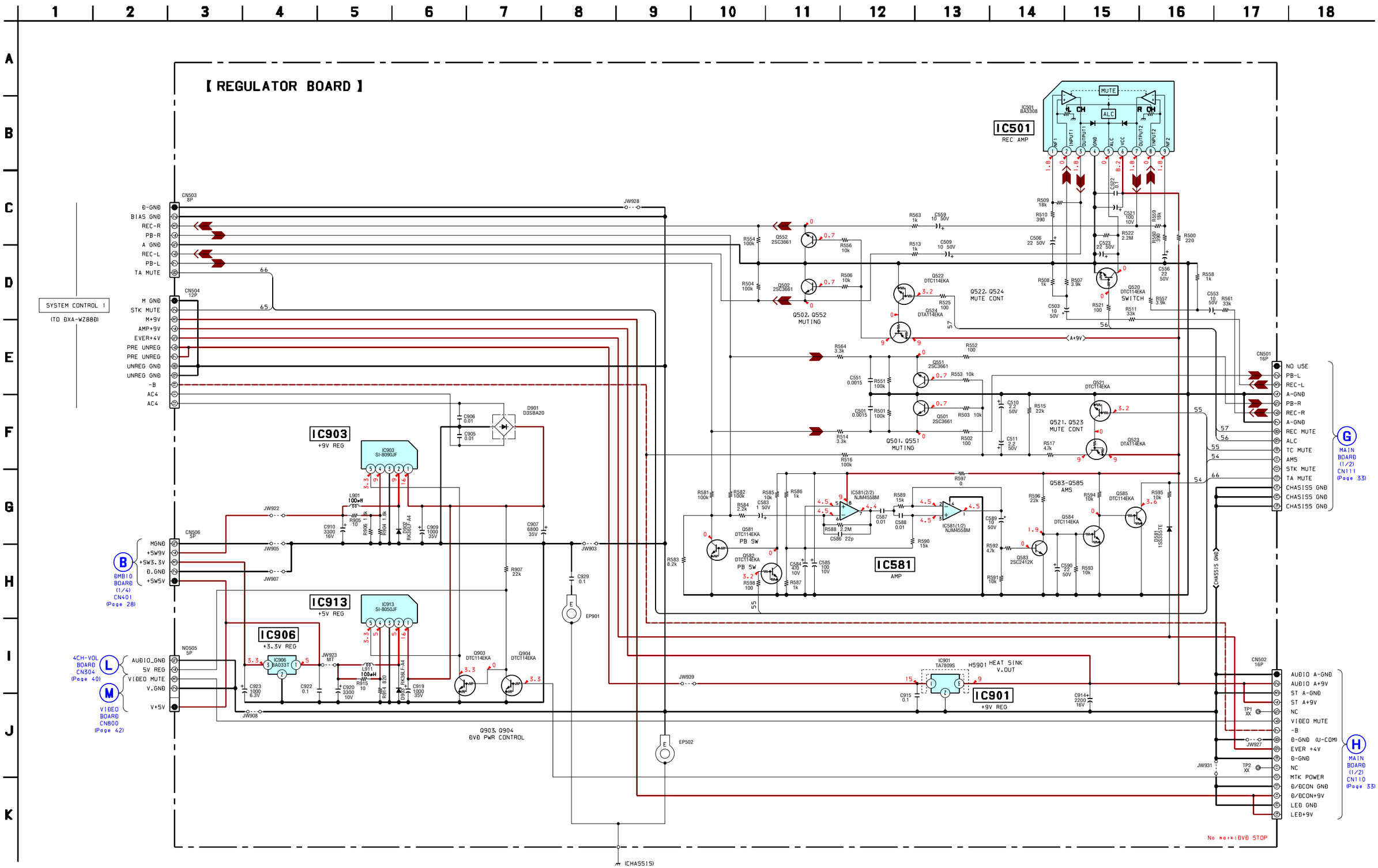
:Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
D581	C-2
D901	E-7
D902	B-7
D903	C-7
IC501	E-2
IC581	C-3
IC901	B-5
IC903	B-8
IC906	B-8
IC913	C-8
Q501	D-2
Q502	E-3
Q520	E-2
Q521	D-2
Q522	D-3
Q523	D-2
Q524	E-3
Q551	D-2
Q552	E-3
Q581	C-2
Q582	C-2
Q583	C-2
Q584	C-2
Q585	C-2
Q903	C-7
Q904	C-7

5-14. SCHEMATIC DIAGRAM – REGULATOR SECTION –



5-15. PRINTED WIRING BOARD – 4-CH-VOL SECTION – • See page 21 for Circuit Boards Location. :Uses unleaded solder.

【4CH-VOL BOARD】

A DMB10 BOARD CN302 (Page 26)

F MAIN BOARD CN105 (Page 32)

CN302 SYSTEM CONTROL 2 (TO DXA-WZ88D)

IC301

L REGULATOR BOARD NO505 (Page 37)

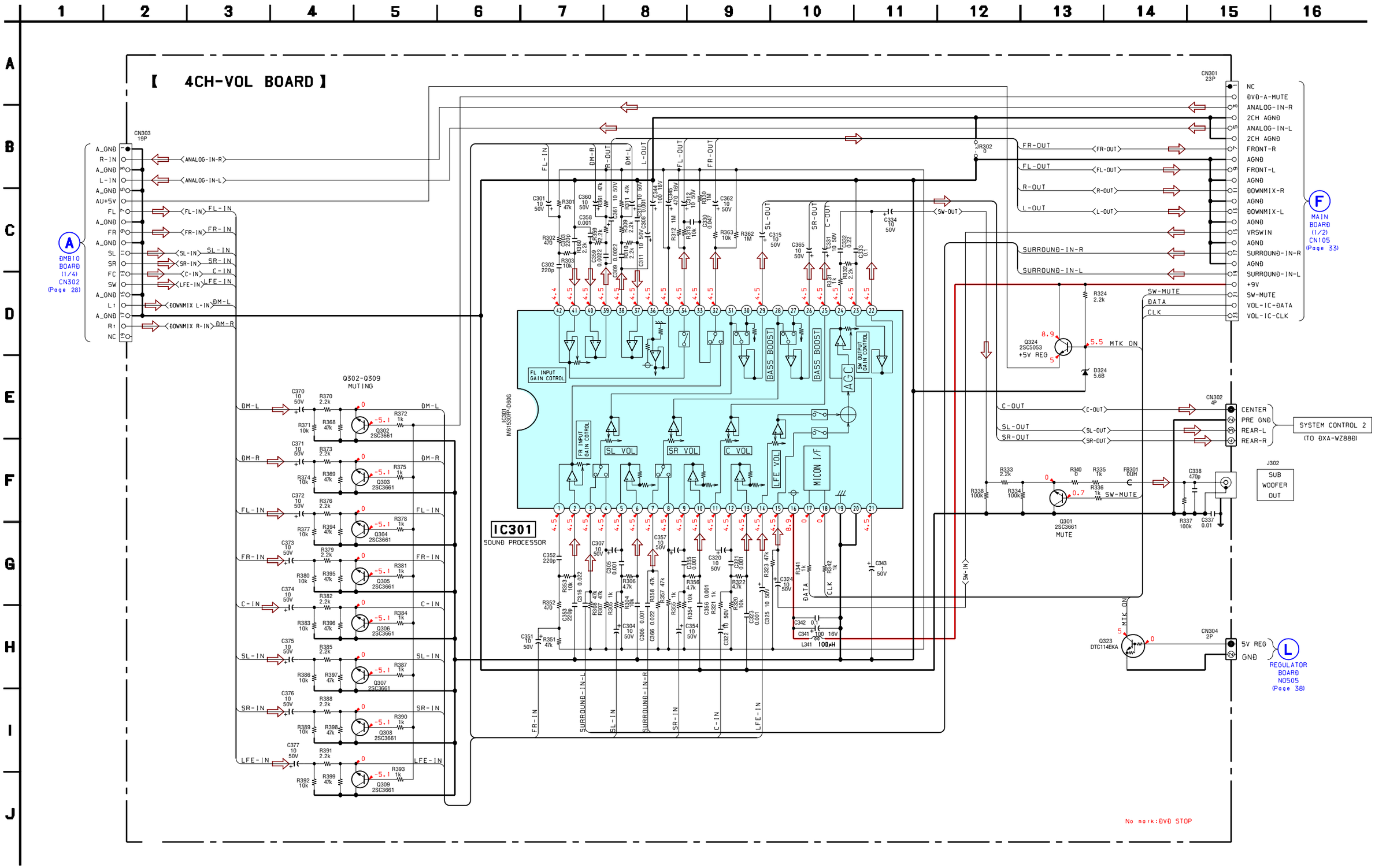
J302 SUB WOOFER OUT

1-865-499-

- **Semiconductor Location**

Ref. No.	Location
D324	B-2
IC301	C-4
Q301	D-4
Q302	A-4
Q303	A-5
Q304	A-4
Q305	B-4
Q306	B-3
Q307	B-4
Q308	B-3
Q309	B-3
Q323	D-4
Q324	B-2

5-16. SCHEMATIC DIAGRAM – 4-CH-VOL SECTION –

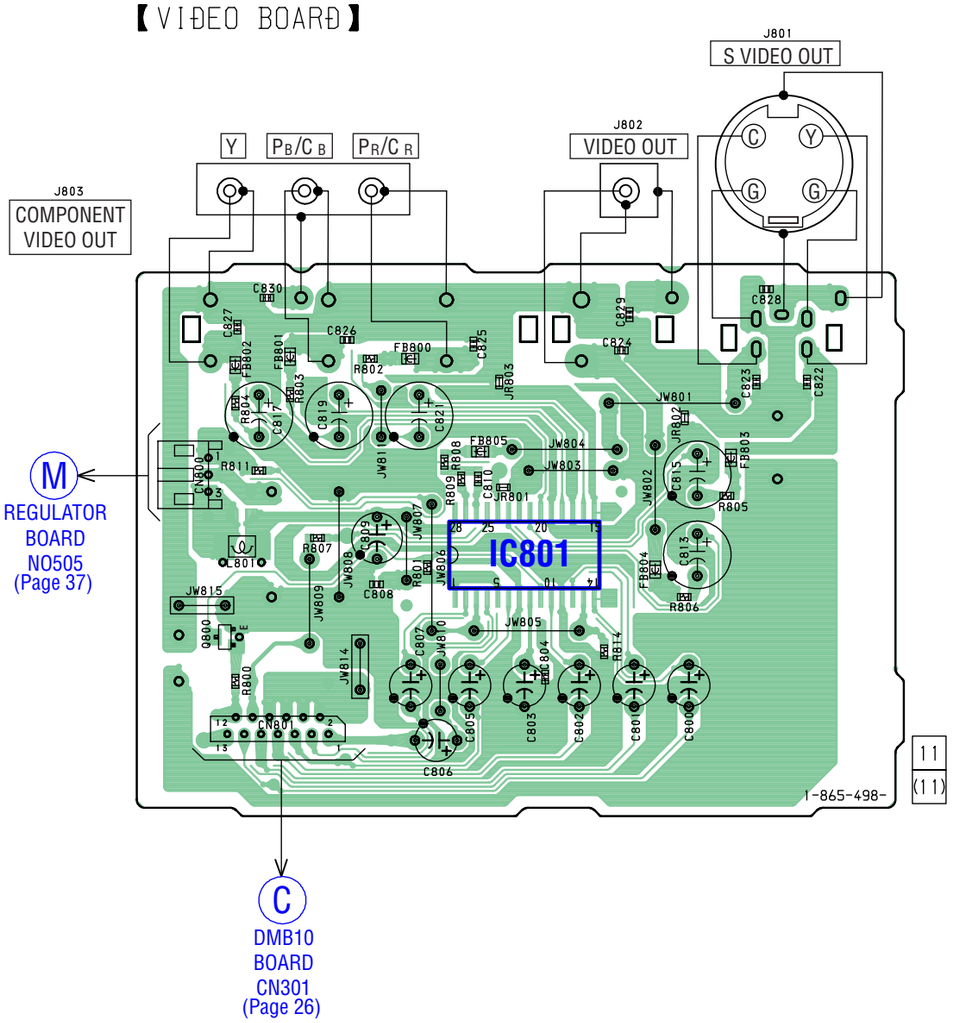


5-17. PRINTED WIRING BOARDS – VIDEO/MIC/VR/MS-203 SECTION –

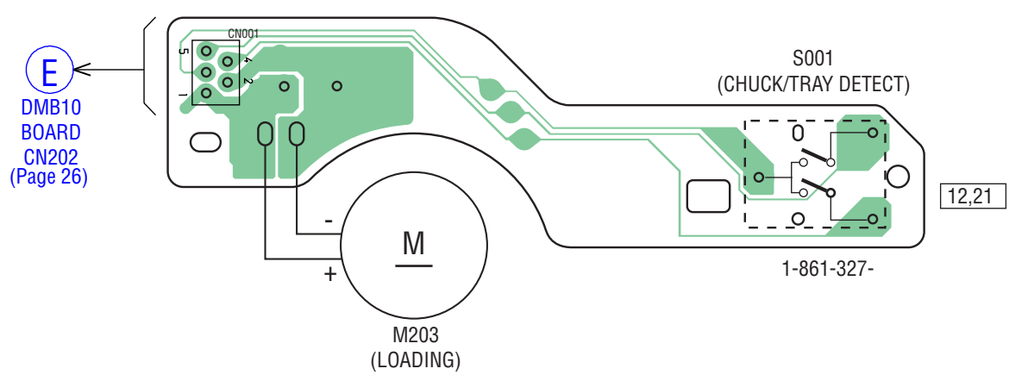
• See page 21 for Circuit Boards Location.

:Uses unleaded solder.

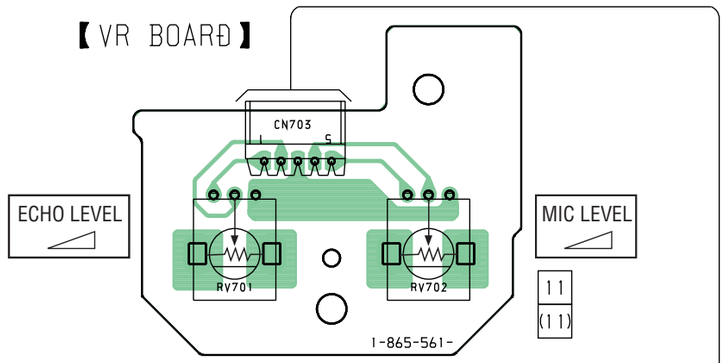
【VIDEO BOARD】



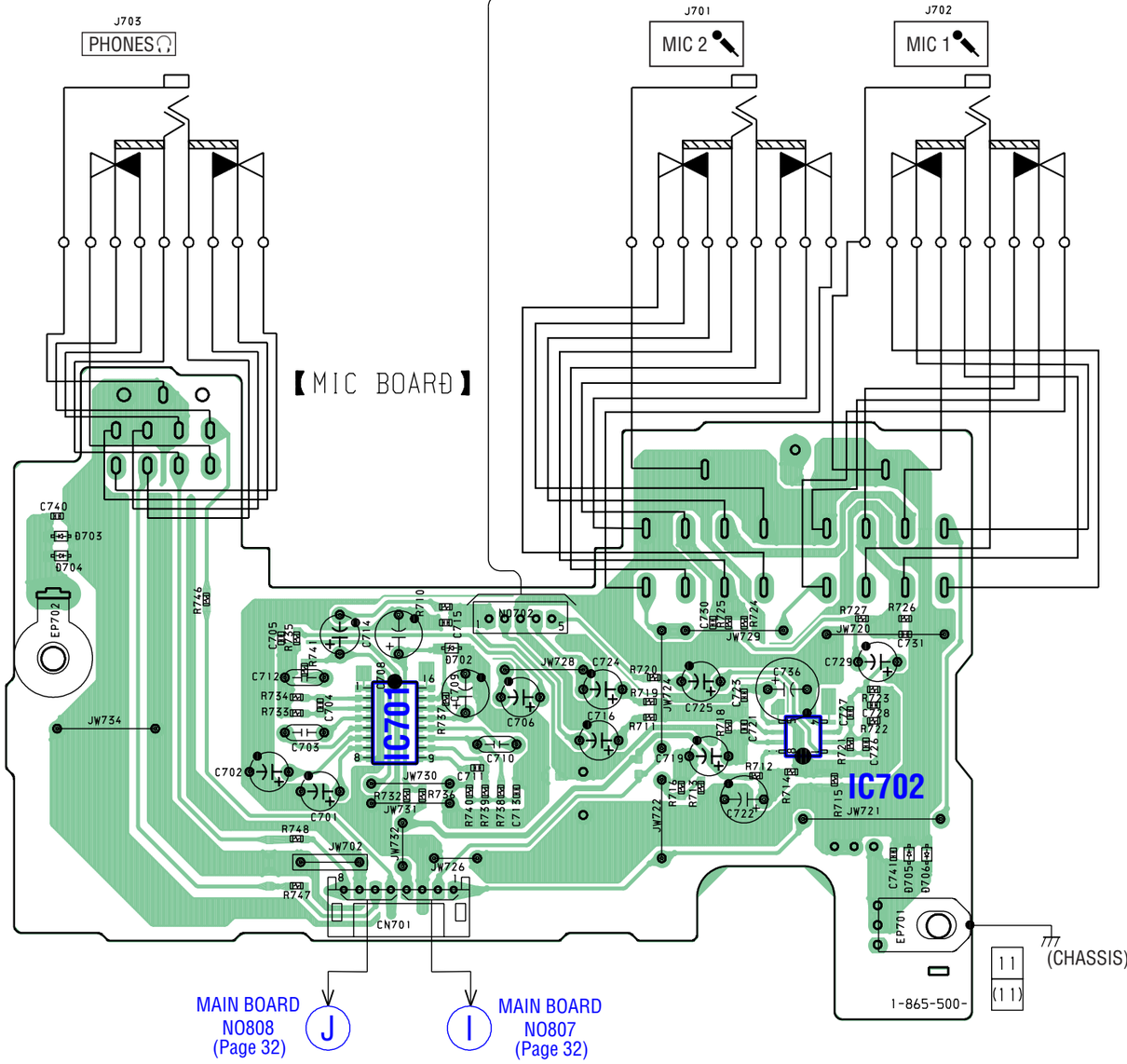
【MS-203 BOARD】



【VR BOARD】



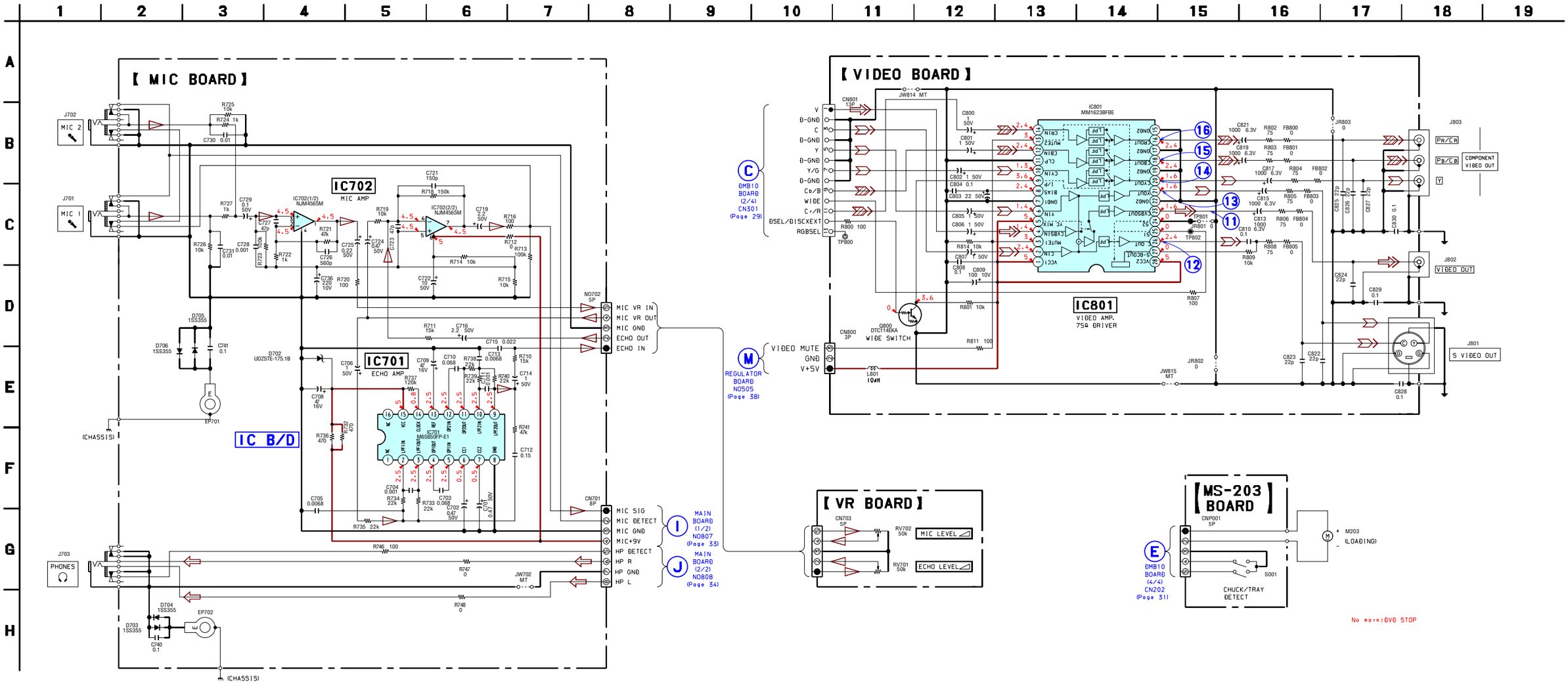
【MIC BOARD】



- **Semiconductor Location**

Ref. No.	Location
D702	E-7
D703	E-5
D704	E-5
D705	F-9
D706	F-9
IC701	E-6
IC702	F-9
IC801	C-3
Q800	C-1

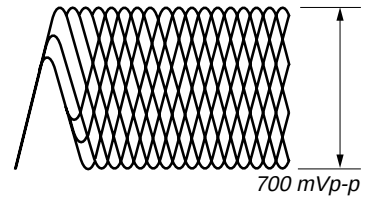
5-18. SCHEMATIC DIAGRAM – VIDEO/MIC/VR/MS-203 SECTION – • See page 45 for IC Block Diagram. • See page 44 for Waveforms.



• **Waveforms**

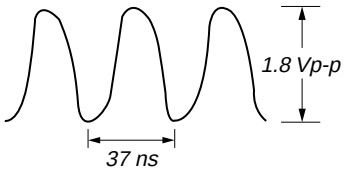
– DMB10 Board –

① IC102 ⑥ (DVDRFIP)



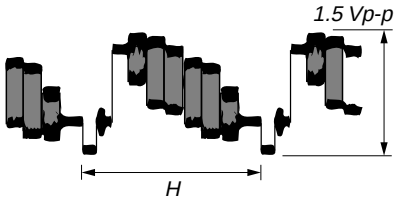
200 mV/DIV, 100 ns/DIV

② IC102 ㉙ (XTALI)



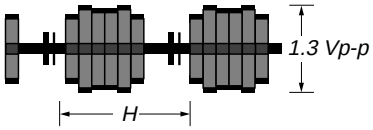
1 V/DIV, 10 ns/DIV

③ IC102 ⑱ (YUV3)



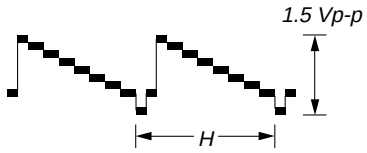
500 mV/DIV, 20 µs/DIV

④ IC102 ⑯ (YUV2)



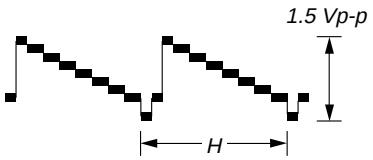
1 V/DIV, 20 µs/DIV

⑤ IC102 ⑭ (YUV1)



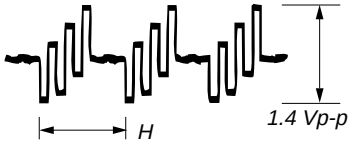
1 V/DIV, 20 µs/DIV

⑥ IC102 ⑳ (YUV4)



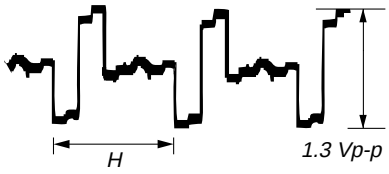
1 V/DIV, 20 µs/DIV

⑦ IC102 ㉒ (YUV5)



500 mV/DIV, 20 µs/DIV

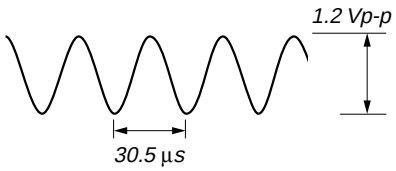
⑧ IC102 ㉓ (YUV6)



500 mV/DIV, 20 µs/DIV

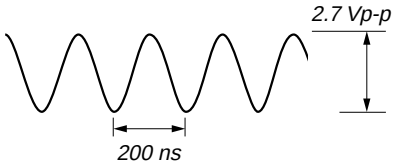
– MAIN Board –

⑨ IC401 ⑩ (XC-IN)



1 V/DIV, 10 µs/DIV

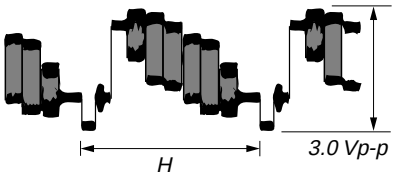
⑩ IC401 ⑮ (X-IN)



1 V/DIV, 100 ns/DIV

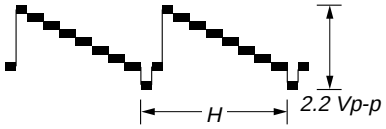
– VIDEO Board –

⑪ IC801 ㉓ (CVBSOUT)



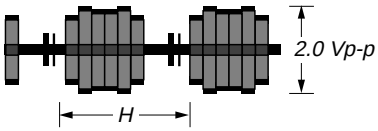
500 mV/DIV, 20 µs/DIV

⑭ IC801 ⑳ (CYOUT)



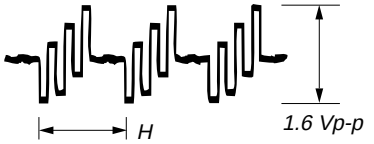
1 V/DIV, 20 µs/DIV

⑫ IC801 ㉕ (COUT)



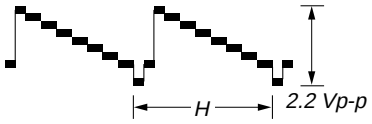
1 V/DIV, 20 µs/DIV

⑮ IC801 ⑱ (CbOUT)



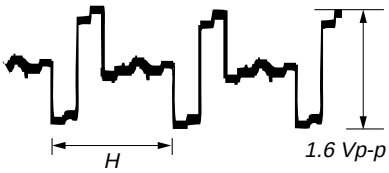
500 mV/DIV, 20 µs/DIV

⑬ IC801 ㉑ (YOUT)



1 V/DIV, 20 µs/DIV

⑯ IC801 ⑯ (CrOUT)

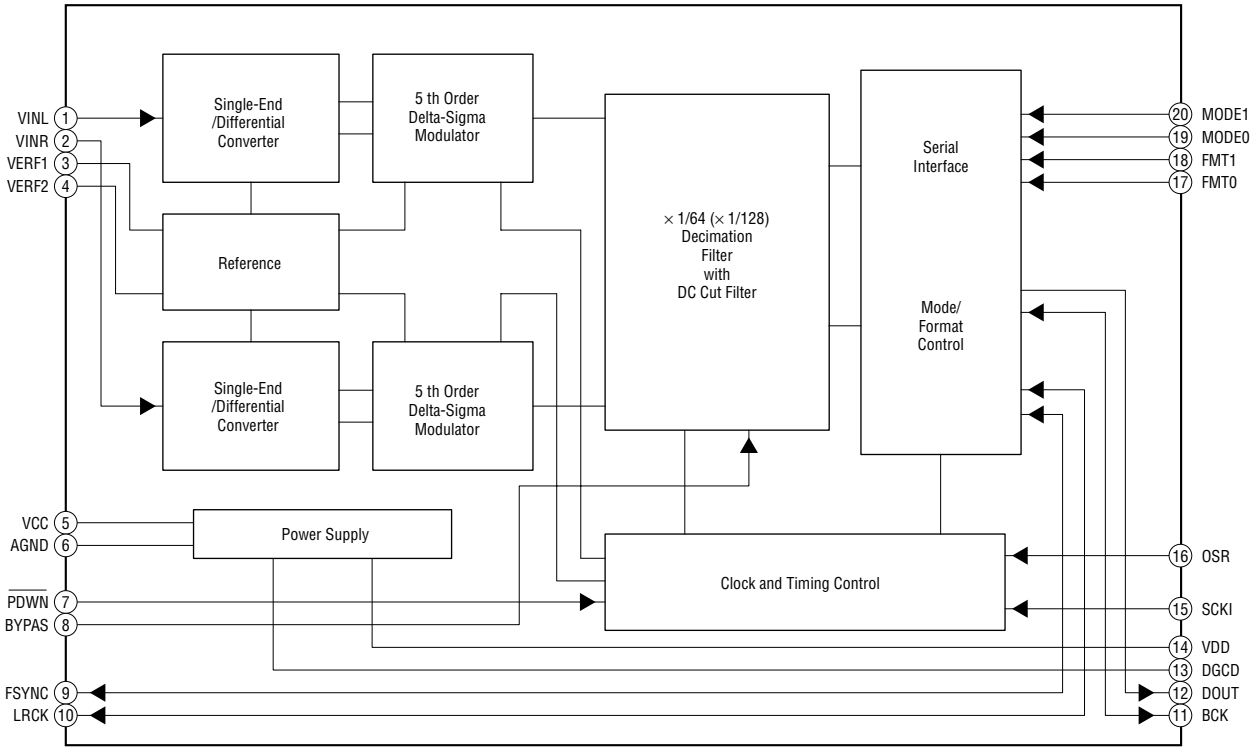


500 mV/DIV, 20 µs/DIV

- **IC Block Diagrams**

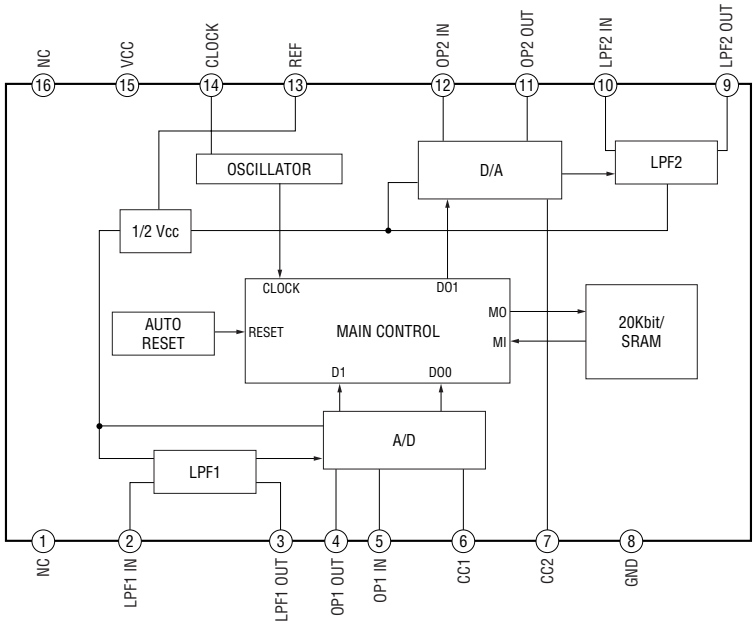
– DMB10 Board –

IC3601 PCM1803DBR



– MIC Board –

IC701 M65850FP-E1



• IC Pin Function Description
DMB10 BOARD IC102 CXD9804R
(CD/DVD RF AMP, FOCUS/TRACKING ERR AMP, DVD SYSTEM PROCESSOR, DIGITAL SERVO PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	AGND	—	Terminal Ground
2	DVDA	I	AC coupled input path A
3	DVDB	I	AC coupled input path B
4	DVDC	I	AC coupled input path C
5	DVDD	I	AC coupled input path D
6	DVDRFIP	I	AC coupled DVD RF signal input RFIP
7	DVDRFIN	I	AC coupled DVD RF signal input RFIN (not used)
8	NA	I	DC coupled main-beam RF signal input A
9	NB	I	DC coupled main-beam RF signal input B
10	MC	I	DC coupled main-beam RF signal input C
11	MD	I	DC coupled main-beam RF signal input D
12	SA	I	DC coupled sub-beam RF signal input A (not used)
13	SB	I	DC coupled sub-beam RF signal input B (not used)
14	SC	I	DC coupled sub-beam RF signal input C (not used)
15	SD	I	DC coupled sub-beam RF signal input D (not used)
16	CDFON	I	CD focusing error negative input (not used)
17	CDFOP	I	CD focusing error positive input (not used)
18	TNI	I	3 beam satellite PD signal negative input
19	TPI	I	3 beam satellite PD signal positive input
20	MDI1	I	Laser power PD monitor input
21	MDI2	I	Laser power PD monitor input
22	LDO2	O	Laser drive output 2
23	LDO1	O	Laser drive output 1
24	SVDD3	—	Power Supply (+3.3V)
25	CSO	O	Central servo, Positive main beam summing output (not used)
26	RFLVL	O	RFRP low pass, or Positive main beam summing output (not used)
27	SGND	—	Terminal Ground
28	V2REFO	O	Reference voltage 2.8V
29	V2O	O	Reference voltage 2.0V
30	VREFO	O	Reference voltage 1.4V
31	FEO	O	Focus error monitor output (not used)
32	TEO	O	Tracking error monitor output (not used)
33	TEZISLY	O	TE Slicing Level (not used)
34	OPOUT	O	Op amp output (not used)
35	OPINN	I	Op amp negative input (not used)
36	OPINP	I	Op amp positive input (not used)
37	DMO	O	Disk motor control output.PWM output
38	FMO	O	Feed motor control PWM output
39	TROPENPWM	O	Tray PWM output/Tray open output.
40	IOPMON	I	General PWM input
41	TRO	O	Tracking servo output
42	FOO	O	Focus servo output
43	USBVSS	—	Terminal Ground
44	USBP	I	USB port DPLUS analog pin (not used)
45	USBM	I	USB port DMINUS analog pin (not used)
46	USBVDD3	—	Power Supply (+3.3V)

Pin No.	Pin Name	I/O	Description
47	SPFG	I	Moter Hall sensor input
48	AN0	I	Not Used
49	AN1	I	Not Used
50	AN2	I	Not Used
51	MAMUTE	O	MAMUTE signal output to System Controller (IC401) (not used)
52	DVDD18	—	Power Supply (+1.8V)
53 to 58	IOA 2 to 7	O	Address bus 2 to 7 output to PROM (IC101)
59	HIGHA0	O	Address bus 8 output to PROM (IC101)
60, 61	IOA18, 19	O	Address bus 18, 19 output to PROM (IC101)
62	DVSS	—	Terminal Ground
63	APLLCAP	I	APLL External Capacitance connection
64	APLLVSS	—	Terminal Ground
65	DVDD3	—	Power Supply (+3.3V)
66	I OWR	O	WE signal output to PROM (IC101)
67	A16	O	Address bus 16 output to PROM (IC101)
68 to 72	HIGHA 7 to 3	O	Address bus 15 to 11 output to PROM (IC101)
73	DVDD3	—	Power Supply (+3.3V)
74, 75	HIGHA 2, 1	O	Address bus 10, 9 output to PROM (IC101)
76	IOA20	O	Address bus 20 output to PROM (IC101)
77	IOCS	O	CE signal output to PROM (IC101)
78	IOA1	O	Address bus 1 output to PROM (IC101)
79	IOOE	O	OE signal output to PROM (IC101)
80	DVDD3	—	Power Supply (+3.3V)
81 to 84	AD 0 to 3	I	Data bus 0 to 3 input from PROM (IC101)
85	DVSS	—	Terminal Ground
86 to 88	AD 4 to 6	I	Data bus 4 to 6 input from PROM (IC101)
89	IOA21	O	Address bus 21 output to PROM (IC101)
90	ALE	O	Address latch enable (not used)
91	AD7	I	Data bus 7 input from PROM (IC101)
92	A17	O	Address bus 17 output to PROM (IC101)
93	IOA0	O	Address bus 0 output to PROM (IC101)
94	DVSS	—	Terminal Ground
95	UWA	I	System Controller write strobe (not used)
96	URB	I	System Controller read strobe (not used)
97	DVDD18	—	Power Supply (+1.8V)
98	IFSDO	O	DVD SOD signal output to System Controller (IC401)
99	IFCK	O	DVD SCO signal output to System Controller (IC401)
100	XIFCS	O	DVD XIFCS signal output to System Controller (IC401)
101	IFSDI	I	VIFBUSY signal input from System Controller (IC401)
102	SCL	O	SCL signal output to EEPROM (IC103)
103	SDA	O	SDA signal output to EEPROM (IC103)
104	TRG-SW	O	RS232 RXD signal output (not used)
105	IF-BSY	I	RS232 TXD signal input from System Controller (IC401)
106	RXD	I	RD232 RXD clock
107	TXD	I	RD232 TXD data
108	DVDD3	—	Power Supply (+3.3V)
109	IEC	I	ICE mode enable (not used)
110	PRST	I	MTRST signal input from System Controller (IC401)
111	IR	I	IR control signal input (not used)

Pin No.	Pin Name	I/O	Description
112	INT0	I	External interrupt0 (not used)
113	DQMO	O	DQM0 signal output to SD-RAM (IC104)
114	MREQ	O	MREQ signal output
115	RD7	I	Data bus 7 from SD-RAM (IC104)
116	DVSS	—	Terminal Ground
117, 118	RD 6, 5	I	Data bus 6, 5 from SD-RAM (IC104)
119	DVSS	—	Terminal Ground
120, 121	RD 4, 3	I	Data bus 4, 3 from SD-RAM (IC104)
122	DVDD18	—	Power Supply (+1.8V)
123 to 125	RD 2 to 0	I	Data bus 2 to 0 from SD-RAM (IC104)
126	RD15	I	Data bus 15 from SD-RAM (IC104)
127	DVDD3	—	Power Supply (+3.3V)
128	RD 14	I	Data bus 14 from SD-RAM (IC104)
129 to 133	RD 13 to 9	I	Data bus 13 to 9 from SD-RAM (IC104)
134	DVSS	—	Terminal Ground
135	RD8	I	Data bus 8 from SD-RAM (IC104)
136	GPI0	—	Not Used
137	DQM1	O	DQM1 signal output to SD-RAM (IC104)
138	REW	O	WE signal output to SD-RAM (IC104)
139	CAS	O	CAS signal output to SD-RAM (IC104)
140	RAS	O	RAS signal output to SD-RAM (IC104)
141	DVDD3	—	Power Supply (+3.3V)
142	RCS	O	RCS signal output to SD-RAM (IC206)
143	BAO	O	BAO signal output to SD-RAM (IC206)
144	DVSS	—	Terminal Ground
145	BA1	O	BA1 signal output to SD-RAM (IC104)
146	RA10	O	Address bus 10 output to SD-RAM (IC104)
147	RA0	O	Address bus 0 output to SD-RAM (IC104)
148	DVSS	—	Terminal Ground
149 to 151	RA 1 to 3	O	Address bus 1 to 3 output to SD-RAM (IC104)
152	DVDD18	—	Power Supply (+1.8V)
153	RVREF	I	Reference voltage (not used)
154	RCLKB	I	Dram clock (not used)
155	DVDD3	—	Power Supply (+3.3V)
156	RCLK	O	CLK signal output to SD-RAM (IC104)
157	CLE	O	CLE signal output to SD-RAM (IC104)
158 to 160	RA 11, 9, 8	O	Address bus 11, 9, 8 output to SD-RAM (IC104)
161	DVSS	—	Terminal Ground
162	RA7	O	Address bus 7 output to SD-RAM (IC104)
163	DVSS	—	Terminal Ground
164 to 166	RA 6 to 4	O	Address bus 6 to 4 output to SD-RAM (IC104)
167	DVDD3	—	Power Supply (+3.3V)
168	DISC/X	—	Not Used
169	RGB	—	Not Used
170	XSMRST	—	Not Used
171	WODE	O	SI signal output to VIDEO AMP (IC201)
172	NT	—	Not Used
173	DVDD18	—	Power Supply (+1.8V)
174	EUR	—	Not Used

Pin No.	Pin Name	I/O	Description
175	DVSS	—	Terminal Ground
176	LIMSW	O	LIMSW signal output to Optical pick-up
177	OCSW	I	SEN signal input from System Controller (IC401)
178	VCLK	—	Not Used
179	CKSW	I	CK SW signal input
180	IO3	—	Not Used
181	TSDM	O	TSDM signal output to Moter driver (IC201)
182	DVDD3	—	Power Supply (+3.3V)
183	MUTE	O	MUTE signal output to Moter driver (IC201)
184	MUTE123	O	MUTE signal output to Moter driver (IC201)
185	REW	O	REW signal output to Moter driver (IC201)
186	FWD	O	FWD signal output to Moter driver (IC201)
187	MSW	O	Volume control signal output to Optical pick-up
188	DSEL	O	Select signal output (not used)
189	DAVCC	—	Power Supply (+3.3V)
190	VREF	I	Bandgap reference voltage (not used)
191	FS	O	Full scale adjustment (pull down)
192	YUV0	—	Not Used
193	DVSS	—	Terminal Ground
194	YUV1	O	Y signal output to VIDEO AMP (IC201)
195	DAVDD	—	Power Supply (+3.3V)
196	YUV2	O	CHROMA signal output to VIDEO AMP (IC201)
197	DVSS	—	Terminal Ground
198	YUV3	O	VIDEO signal output to VIDEO AMP (IC201)
199	DAVDD	—	Power Supply (+3.3V)
200	YUV4	O	G signal output to VIDEO AMP (IC201)
201	DVSS	—	Terminal Ground
202	YUV5	O	B signal output to VIDEO AMP (IC201)
203	YUV6	O	R signal output to VIDEO AMP (IC201)
204	DVDD3	—	Power Supply (+3.3V)
205	MIC/VSYNC	—	Not Used
206	VOICE/YUV7	—	Not Used
207	KRMOB/HSYNC	O	KRMOB signal output to System Controller (IC401)
208	SMSCK	—	Not Used
209	SPDATA/SMSDI	I	Audio data of SPDIF input
210	SMSDO	—	Not Used
211	XSMCS	—	Not Used
212	DVDD3	—	Power Supply (+3.3V)
213	ALRCK	O	Audio L/R channel clock
214	ABCK	O	Audio bit clock
215	ACLK	O	Audio DAC master clock
216	DVSS	—	Terminal Ground
217	ASDATA0	O	Audio serial data
218	ASDATA1	O	Audio serial data
219	ASDATA2	O	Audio serial data
220	XRST	O	RESET signal output to D/A converter(IC301)
221	DVDD18	—	Power Supply (+1.8V)
222	ASDATA4	O	Audio serial data (not used)
223	DVSS	—	Terminal Ground

Pin No.	Pin Name	I/O	Description
224	DWIDE	—	Not Used
225	SDPIF	O	SPDIF output (not used)
226	RFGND18	—	Terminal Ground
227	RFVDD18	—	Power Supply (+1.8V)
228	ZTALO	O	Oscillator output signal
229	ZTALI	I	Oscillator input signal
230	JITFO	O	RF jitter meter output
231	JITFN	I	Negative input of operation amplifier for RF jigger meter
232	PLLVSS	—	Terminal Ground
233	IDAC	—	Not Used
234	PLLVDD3	—	Power Supply (+3.3V)
235	LPFON	O	Negative output of loop filter amplifier
236	LPFIP	I	Positive input of loop filter amplifier
237	LPFIN	I	Negative input of loop filter amplifier
238	LPFOP	O	Positive output of loop filter amplifier
239	VDD3	—	Power Supply (+3.3V)
240	VCM	I	SACD-Common mode Reference
241	VSS	—	Terminal Ground
242	VREEP	I	SACD-TOP Reference
243	VREEN	I	SACD-Bottom Reference
244	RFVDD3	—	Power Supply (+3.3V)
245	RFRPDC	O	RFRP signal output (not used)
246	RFRPAC	O	RFRP signal output (not used)
247	HRFZC	I	High frequency RF ripple zero crossing
248	CRTPLP	O	Defect level filter capacitor connecting
249	RFGND	—	Terminal Ground
250	CEQP	O	EQ offset loop capacitance (not used)
251	CEQN	O	EQ offset loop capacitance (not used)
252	OSP	O	RF offset cancellation capacitor connecting
253	OSN	I	RF offset cancellation capacitor connecting
254	RFGC	O	RF offset loop capacitor connecting for DVD-ROM
255	IREF	I	Current reference input
256	AVDD3	—	Power Supply (+3.3V)

MAIN BOARD IC401 M30622MEP-A04FPU0(SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	MIC-DETECT	I	Microphone connection detection signal input "L": headphone connected
2	NO USE	I	Not Used
3	NO USE	I	Not Used
4	SIRCS	I	Remote control signal input
5	NO USE	I	Not Used
6	NO USE	I	Not Used
7	NO USE	I	Not Used
8	BYTE	—	Ground terminal
9	VSS	—	Ground terminal
10	XC-IN	I	Sub system clock input terminal (32.768kHz)
11	XC-OUT	O	Sub system clock output terminal (32.768kHz)
12	RESET	I	System reset signal input from the reset signal IC "L": reset
13	X-OUT	O	Main system clock output terminal (16MHz)
14	VSS	—	Ground terminal
15	X-IN	I	Main system clock input terminal (16MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt input terminal
18	RDS-INT	I	Not Used
19	NO USE	I	Not Used
20	AC-CUT	I	AC off detection signal input from the reset signal IC "L": AC Cut detected
21	DVD-A-MUTE	O	DVD analog signal muting on/off control signal output "H":muting on
22	ANALOG-IN-MUTE	O	DVD Motherboard analog input signal muting on/off control signal output "H":muting on
23	NO USE	I	Not Used
24	KRMOB	I	KRMOB Signal input
25	NO USE	I	Not Used
26	MIC-STATUS	O	Mic status output to DVD Motherboard "L":
27	XIFCS	I	Communication Initialization Request Acknowledgment signal input from DVD Motherboard
28	IF-BUSY	O	Communication Initialization Request signal output to DVD Motherboard
29	IIC-CLK	I/O	Clock signal for IIC communication between Master Control controller and Display Control controller
30	IIC-DATA	I/O	Data signal for IIC communication between Master Control controller and Display Control controller
31	SIO	O	Serial data output signal output to DVD Motherboard
32	MTK-SOD	I	Serial data input signal input from DVD Motherboard
33	MTK-CLK	I	Serial data clock signal input from DVD Motherboard
34	SOFT-TEST	O	Soft test signal output
35	MREQ	I	Muting request signal input from DVD Motherboard "L":Muting requested
36	NO USE	—	Not Used
37	VIDEO MUTE	O	Video muting on/off control signal output "L":muting on
38	MTK-RESET	O	Reset signal output to DVD Motherboard "L": reset
39	MTK-POWER	O	Power supply control signal to DVD Motherboard "H": Power supply on
40	RD-S-DATA	I	Not Used
41	NO USE	—	Not Used
42	NO USE	—	Not Used
43	TUNED	I	Tuning detection signal input from the tuner unit "L":tuned
44	ST-CE	O	PLL chip enable signal output to the tuner unit

Pin No.	Pin Name	I/O	Description
45	ST-DOUT	I	PLL serial data input from the tuner unit
46	ST-DIN	O	PLL serial data output to the tuner unit
47	ST-CLK	O	PLL serial data transfer clock signal output to the tuner unit
48	SW-MUTE	O	Subwoofer muting on/off control signal output "L":muting on
49	VOL-IC-CLK	O	Serial data transfer clock signal output to 4-ch volume IC, M61530FP
50	VOL-IC-DATA	O	Serial data output to 4-ch volume IC, M61530FP
51	AUDIO-IC-CLK	O	Serial data transfer clock signal output to audio signal processor, M61529FP
52	AUDIO-IC-DATA	O	Serial data output to audio signal processor, M61529FP
53	CN CHECK	I	Connector unplug protection detection input terminal "L": over-voltage detected
54	AMS-IN	I	Music detection signal input from automatic music sensor
55	TC-MUTE	O	Tape playback muting on/off control signal output "H":muting on
56	ALC	O	Automatic limiter control signal output "H":limiter ON
57	REC-MUTE	O	Recording muting on/off control signal output "L":muting on
58	IO-EXP_DATA_OUT	O	Serial data output signal to IO expander, PT8300
59	IO-EXP-DATA_IN	I	Serial data input signal from IO expander, PT8300
60	IO-EXP_LAT	O	Serial data clock signal to I/O expander, PT8300
61	IO-EXP_CLK	O	Serial data latch signal to I/O expander, PT8300
62	VCC	—	Power supply terminal (+3.3V)
63	HP-DETECT	I	Headphone connection detection signal input "H": headphone connected
64	VSS	—	Ground terminal
65	STK-POWER	O	Power amplifier on/off control signal output "H": amplifier on
66	LINE-MUTE	O	Line muting on/off control signal "H":muting on
67	VOL-A	I	Jog dial pulse input from the VOLUME rotary encoder (A phase input)
68	VOL-B	I	Jog dial pulse input from the VOLUME rotary encoder (B phase input)
69	LED - VIDEO/SAT	O	LED drive signal output of the SOUND FIELD indicator "H":LED on
70	LED - DVD	O	LED drive signal output of the DVD indicator "H":LED on
71	LED - TAPE A/B	O	LED drive signal output of the TAPE A/B indicator "H":LED on
72	LED - TUNER/BAND	O	LED drive signal output of the TUNER/BAND indicator "H":LED on
73	DISPLAY_KEY	I	DISPLAY key press detection signal (Interrupt input)
74	POWER_KEY	I	POWER key press detection signal (Interrupt input)
75	LED - SOUND MODE	O	LED drive signal output of the VIDEO/SAT indicator "H":LED on
76	STBY-LED	O	LED drive signal output of POWER indicator "H":Green Color "L": Red Color
77	HP-MUTE	O	Headphone muting on/off control signal "L": muting on
78	NO USE	I	Not Used
79	NO USE	I	Not Used
80	NO USE	I	Not Used
81	FL-DRIVER-DATA	O	Serial data output signal to FL Driver, ML9208
82	FL-DRIVER-CLK	O	Serial data clock signal to FL Driver, ML9208
83	FL-DRIVER-CS	O	Serial data chip select signal to FL Driver, ML9208
84	NO USE	I	Not Used
85	NO USE	I	Not Used
86	NO USE	I	Not Used
87	OUT-SW	I	Eject detection signal input from CDM
88	B-TRIG	O	Deck B side trigger plunger drive signal output "H":plunger on
89	A-SHUT	I	Shut off detection signal input from deck A side reel pulse detector (A/D input)
90	B-SHUT	I	Shut off detection signal input from deck A side reel pulse detector (A/D input)
91	A-TRIG	O	Deck A side trigger plunger drive signal output "H":plunger on
92	3.3V-MNT	I	Not Used
93	DEST-IN	I	Destination setting terminal (A/D input)

Pin No.	Pin Name	I/O	Description
94	AD-KEY2	I	Key input terminal (A/D input)
95	AD-KEY1	I	Key input terminal (A/D input)
96	AVSS	—	Ground terminal (for A/D conversion)
97	VACS-IN	I	VACS level detection signal
98	VREF	I	A/D Converter reference voltage input terminal (+3.3V)
99	AVCC	—	Power supply terminal (+3.3V) (for A/D conversion)
100	FL-DRIVER-RESET	O	Serial data reset signal to FL Driver, ML9208

SECTION 6
EXPLODED VIEWS

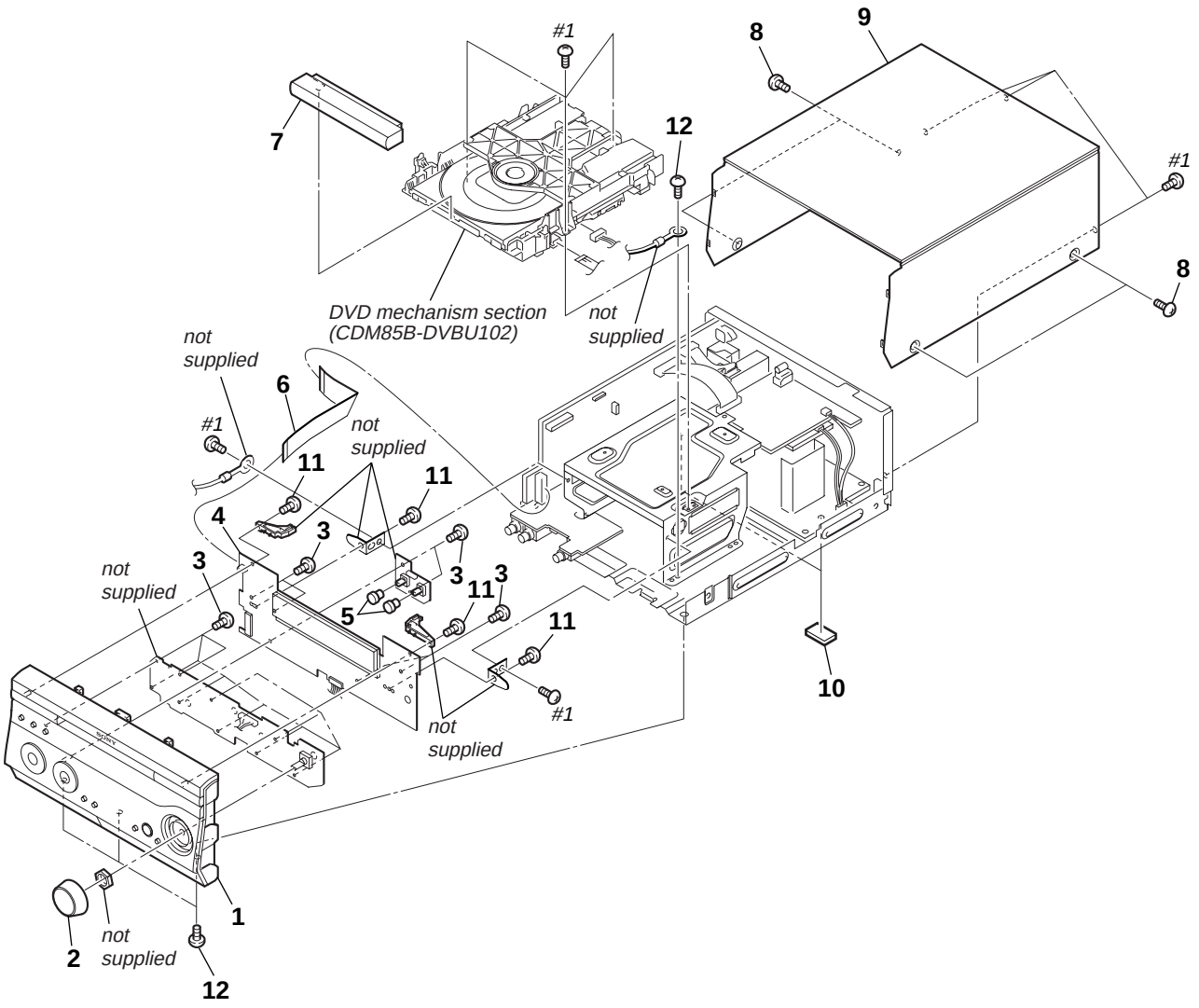
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  AR : Argentine model.
  AUS : Australian model.
  E3 : 240 V AC area in E model.
  E12 : 220-240 V AC area in E model.
  E13 : 220-230 V AC area in E model.
  E15 : 220-240 V AC area in E model.
  E51 : Chilean and peruvian models.
  EA : Saudi Arabia model.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

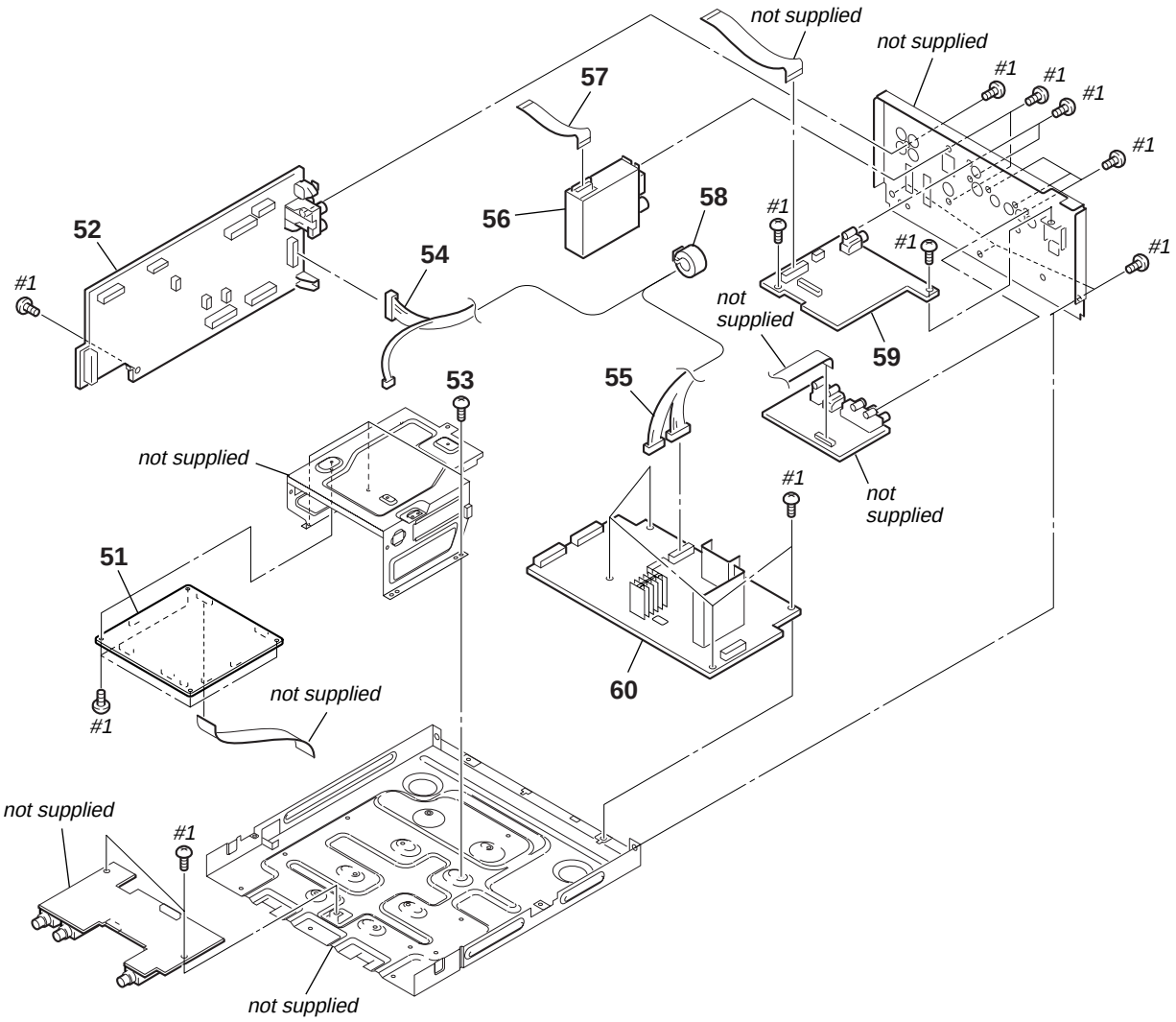
PL : Phillippines model.
SP : Singapore and Malaysia models.
TH : Thai model.

6-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	X-2050-194-1	PANEL (CD) ASSY, FRONT (EXCEPT AR, E51)	
1	X-2059-769-1	PANEL (CD) ASSY, FRONT (AR, E51)	
2	2-580-712-01	KNOB (VOL)	
3	3-087-053-01	+BVTP2.6 (3CR)	
4	A-1099-242-A	FL BOARD, COMPLETE (EXCEPT TH)	
4	A-1122-759-A	FL BOARD, COMPLETE (TH)	
5	2-580-715-01	KNOB (MIC)	
6	1-827-729-11	WIRE (FLAT TYPE) (23 CORE)	
7	2-580-711-01	PANEL, LOADING	
8	3-363-099-11	SCREW (CASE 3 TP2)	
9	2-580-698-11	CASE	
10	4-225-252-01	CUSHION (FOOT)	
11	3-087-053-11	+BVTP2.6X10 (3CR)	
12	3-077-331-21	+BV3 (3-CR)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

6-2. CHASSIS SECTION

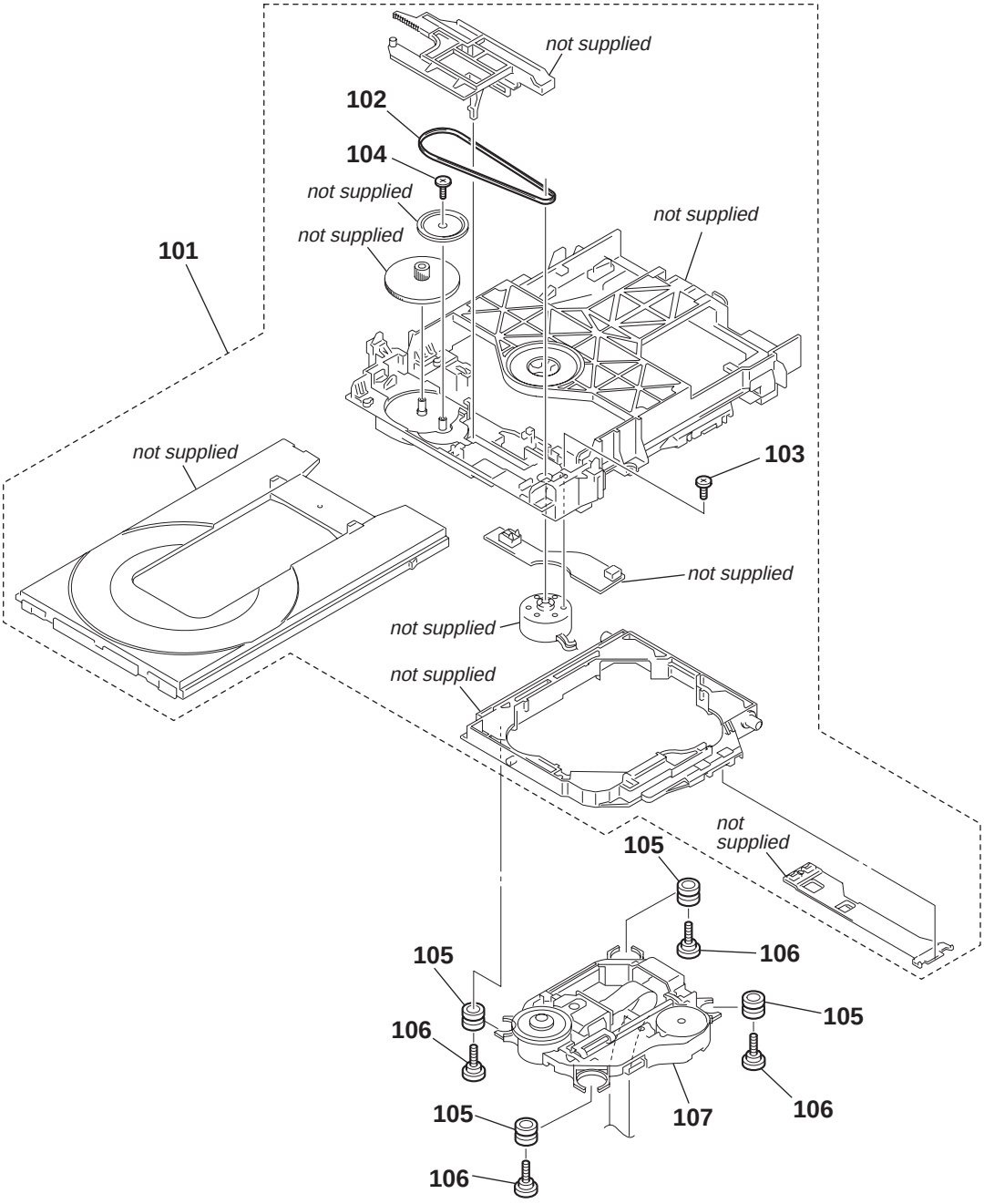


Ref. No.	Part No.	Description	Remark
☆ 51	A-1099-409-A	DMB10 BOARD, COMPLETE (PL, SP)	
☆ 51	A-1122-695-A	DMB10 BOARD, COMPLETE (E15, E3, EA, E12, E13, AUS)	
☆ 51	A-1122-767-A	DMB10 BOARD, COMPLETE (TH)	
☆ 51	A-1122-862-A	DMB10 BOARD, COMPLETE (AR, E51)	
52	A-1099-233-A	MAIN BOARD, COMPLETE (PL, SP)	
52	A-1122-677-A	MAIN BOARD, COMPLETE (TH)	
52	A-1122-687-A	MAIN BOARD, COMPLETE (E15, E3)	
52	A-1122-693-A	MAIN BOARD, COMPLETE (AUS)	
52	A-1122-793-A	MAIN BOARD, COMPLETE (E12)	
52	A-1122-821-A	MAIN BOARD, COMPLETE (E13)	
52	A-1122-833-A	MAIN BOARD, COMPLETE (EA)	
52	A-1122-868-A	MAIN BOARD, COMPLETE (AR, E51)	
53	3-077-331-21	+BV3 (3-CR)	

Ref. No.	Part No.	Description	Remark
54	1-827-003-11	CORD (WITH CONNECTOR) 19P	
55	1-827-012-11	CORD (WITH CONNECTOR) 20P	
56	1-693-671-11	TUNER (FM/AM) (TM-10E)	
57	1-828-954-11	WIRE (FLAT TYPE) (9 CORE)	
58	1-400-043-11	CORE, FERRITE (EA, AUS)	
58	1-400-640-11	CORE, FERRITE (EA, AUS)	
58	1-469-089-11	FILTER, CLAMP (FERRITE CORE) (EA, AUS)	
58	1-543-982-12	CORE, FERRITE	
59	A-1099-237-A	4CH-VOL BOARD, COMPLETE (EXCEPT TH)	
59	A-1122-762-A	4CH-VOL BOARD, COMPLETE (TH)	
60	A-1099-244-A	REGULATOR BOARD, COMPLETE (EXCEPT TH)	
60	A-1122-766-A	REGULATOR BOARD, COMPLETE (TH)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

☆ New part of EEP ROM (IC103) on the DMB10 board cannot be used. Therefore, if the mounted DMB10 board (A-1122-695-A, etc.) is replaced, exchange new EEP ROM (IC103) with that used before the replacement.

6-3. DVD MECHANISM SECTION (CDM85B-DVBU102)



Ref. No.	Part No.	Description	Remark
101	A-6071-669-A	LOADING ASSY (M)	
102	3-088-371-01	BELT	
103	4-974-725-11	SCREW (M1.7X2.5), P	
104	4-674-137-11	SCREW (PTP2X5)	
105	3-088-372-01	INSULATOR	
106	3-087-599-01	INSULATOR SCREW	
⚠107	8-820-290-02	OPTICAL PICK-UP (KHM-310CAA/C2RP)	

SECTION 7
ELECTRICAL PARTS LIST

4CH-VOL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . , uPA. . , µPA. . ,
  uPB. . : µPB. . , uPC. . , µPC. . ,
  uPD. . : µPD. .
- Abbreviation
  AR : Argentine model.
  AUS : Australian model.
  E3 : 240 V AC area in E model.
  E12 : 220-240 V AC area in E model.

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

E13 : 220-230 V AC area in E model.
E15 : 220-240 V AC area in E model.
E51 : Chilean and peruvian models.
EA : Saudi Arabia model.
PL : Phillippines model.
SP : Singapore and Malaysia models.
TH : Thai model.

Ref. No.	Part No.	Description			Remark
	A-1099-237-A	4CH-VOL BOARD, COMPLETE (EXCEPT TH)			
	A-1122-762-A	4CH-VOL BOARD, COMPLETE (TH)			
		**********			
		< CAPACITOR >			
C301	1-126-964-11	ELECT	10uF	20%	50V
C302	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C303	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C304	1-126-964-11	ELECT	10uF	20%	50V
C305	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C306	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C307	1-126-964-11	ELECT	10uF	20%	50V
C308	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C309	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C310	1-126-964-11	ELECT	10uF	20%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-964-11	ELECT	10uF	20%	50V
C316	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C320	1-126-964-11	ELECT	10uF	20%	50V
C321	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C322	1-126-964-11	ELECT	10uF	20%	50V
C323	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C324	1-126-964-11	ELECT	10uF	20%	50V
C325	1-126-964-11	ELECT	10uF	20%	50V
C330	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C331	1-126-964-11	ELECT	10uF	20%	50V
C332	1-137-190-91	FILM	0.22uF	5%	50V
C333	1-136-497-81	FILM	0.1uF	5%	50V
C334	1-126-964-11	ELECT	10uF	20%	50V
C337	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C338	1-164-362-11	CERAMIC CHIP	470PF	5%	50V
C341	1-126-933-11	ELECT	100uF	20%	16V
C342	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C343	1-126-960-11	ELECT	1uF	20%	50V
C344	1-126-933-11	ELECT	100uF	20%	16V
C345	1-126-935-11	ELECT	470uF	20%	16V
C351	1-126-964-11	ELECT	10uF	20%	50V
C352	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C353	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C354	1-126-964-11	ELECT	10uF	20%	50V
C355	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C356	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C357	1-126-964-11	ELECT	10uF	20%	50V
C358	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C359	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C360	1-126-964-11	ELECT	10uF	20%	50V
C361	1-126-964-11	ELECT	10uF	20%	50V
C362	1-126-964-11	ELECT	10uF	20%	50V
C365	1-126-964-11	ELECT	10uF	20%	50V
C366	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C370	1-126-964-11	ELECT	10uF	20%	50V
C371	1-126-964-11	ELECT	10uF	20%	50V
C372	1-126-964-11	ELECT	10uF	20%	50V
C373	1-126-964-11	ELECT	10uF	20%	50V
C374	1-126-964-11	ELECT	10uF	20%	50V
C375	1-126-964-11	ELECT	10uF	20%	50V
C376	1-126-964-11	ELECT	10uF	20%	50V
C377	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN301	1-569-939-31	SOCKET, CONNECTOR 23P			
* CN302	1-566-460-11	PIN, CONNECTOR 4P (SYSTEM CONTROL 2)			
CN303	1-779-287-11	CONNECTOR, FFC (LIF (NON-ZIF)) 19P			
CN304	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< DIODE >			
D324	8-719-069-55	DIODE UDZSTE-175.6B			
		< SHORT >			
FB301	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC301	6-703-651-11	IC M61530FP-D60G			
		< JACK >			
J302	1-770-377-31	JACK, PIN 1P (SUBWOOFER OUT)			
		< SHORT >			
JR300	1-216-864-11	SHORT CHIP	0		
JR302	1-216-864-11	SHORT CHIP	0		
JR303	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L341	1-412-064-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q301	8-729-802-80	TRANSISTOR	2SC3661		
Q302	8-729-802-80	TRANSISTOR	2SC3661		

Ref. No.	Part No.	Description			Remark
Q303	8-729-802-80	TRANSISTOR	2SC3661		
Q304	8-729-802-80	TRANSISTOR	2SC3661		
Q305	8-729-802-80	TRANSISTOR	2SC3661		
Q306	8-729-802-80	TRANSISTOR	2SC3661		
Q307	8-729-802-80	TRANSISTOR	2SC3661		
Q308	8-729-802-80	TRANSISTOR	2SC3661		
Q309	8-729-802-80	TRANSISTOR	2SC3661		
Q323	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q324	8-729-056-46	TRANSISTOR	2SC5053T100Q		
		< RESISTOR >			
R301	1-216-841-11	METAL CHIP	47K	5%	1/10W
R302	1-216-817-11	METAL CHIP	470	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-833-11	METAL CHIP	10K	5%	1/10W
R305	1-216-821-11	METAL CHIP	1K	5%	1/10W
R306	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R307	1-216-841-11	METAL CHIP	47K	5%	1/10W
R308	1-216-841-11	METAL CHIP	47K	5%	1/10W
R309	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R310	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R311	1-216-841-11	METAL CHIP	47K	5%	1/10W
R312	1-216-857-11	METAL CHIP	1M	5%	1/10W
R313	1-216-833-11	METAL CHIP	10K	5%	1/10W
R314	1-216-819-11	METAL CHIP	680	5%	1/10W
R320	1-216-833-11	METAL CHIP	10K	5%	1/10W
R321	1-216-821-11	METAL CHIP	1K	5%	1/10W
R322	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R323	1-216-841-11	METAL CHIP	47K	5%	1/10W
R324	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R330	1-216-857-11	METAL CHIP	1M	5%	1/10W
R331	1-216-821-11	METAL CHIP	1K	5%	1/10W
R332	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R333	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R334	1-216-845-11	METAL CHIP	100K	5%	1/10W
R335	1-216-821-11	METAL CHIP	1K	5%	1/10W
R336	1-216-821-11	METAL CHIP	1K	5%	1/10W
R337	1-216-845-11	METAL CHIP	100K	5%	1/10W
R338	1-216-845-11	METAL CHIP	100K	5%	1/10W
R340	1-216-864-11	SHORT CHIP	0		
R341	1-216-821-11	METAL CHIP	1K	5%	1/10W
R342	1-216-821-11	METAL CHIP	1K	5%	1/10W
R351	1-216-841-11	METAL CHIP	47K	5%	1/10W
R352	1-216-817-11	METAL CHIP	470	5%	1/10W
R353	1-216-833-11	METAL CHIP	10K	5%	1/10W
R354	1-216-833-11	METAL CHIP	10K	5%	1/10W
R355	1-216-821-11	METAL CHIP	1K	5%	1/10W
R356	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R357	1-216-841-11	METAL CHIP	47K	5%	1/10W
R358	1-216-841-11	METAL CHIP	47K	5%	1/10W
R359	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R360	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R361	1-216-841-11	METAL CHIP	47K	5%	1/10W
R362	1-216-857-11	METAL CHIP	1M	5%	1/10W
R363	1-216-833-11	METAL CHIP	10K	5%	1/10W
R364	1-216-819-11	METAL CHIP	680	5%	1/10W
R368	1-216-841-11	METAL CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R369	1-216-841-11	METAL CHIP	47K	5%	1/10W
R370	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R371	1-216-833-11	METAL CHIP	10K	5%	1/10W
R372	1-216-821-11	METAL CHIP	1K	5%	1/10W
R373	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R374	1-216-833-11	METAL CHIP	10K	5%	1/10W
R375	1-216-821-11	METAL CHIP	1K	5%	1/10W
R376	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R377	1-216-833-11	METAL CHIP	10K	5%	1/10W
R378	1-216-821-11	METAL CHIP	1K	5%	1/10W
R379	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R380	1-216-833-11	METAL CHIP	10K	5%	1/10W
R381	1-216-821-11	METAL CHIP	1K	5%	1/10W
R382	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R383	1-216-833-11	METAL CHIP	10K	5%	1/10W
R384	1-216-821-11	METAL CHIP	1K	5%	1/10W
R385	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R386	1-216-833-11	METAL CHIP	10K	5%	1/10W
R387	1-216-821-11	METAL CHIP	1K	5%	1/10W
R388	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R389	1-216-833-11	METAL CHIP	10K	5%	1/10W
R390	1-216-821-11	METAL CHIP	1K	5%	1/10W
R391	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R392	1-216-833-11	METAL CHIP	10K	5%	1/10W
R393	1-216-821-11	METAL CHIP	1K	5%	1/10W
R394	1-216-841-11	METAL CHIP	47K	5%	1/10W
R395	1-216-841-11	METAL CHIP	47K	5%	1/10W
R396	1-216-841-11	METAL CHIP	47K	5%	1/10W
R397	1-216-841-11	METAL CHIP	47K	5%	1/10W
R398	1-216-841-11	METAL CHIP	47K	5%	1/10W
R399	1-216-841-11	METAL CHIP	47K	5%	1/10W
**********					
☆	A-1099-409-A	DMB10 BOARD, COMPLETE (PL, SP)			
☆	A-1122-695-A	DMB10 BOARD, COMPLETE (E15, E3, EA, E12, E13, AUS)			
☆	A-1122-767-A	DMB10 BOARD, COMPLETE (TH)			
☆	A-1122-862-A	DMB10 BOARD, COMPLETE (AR, E51)			
		**********			
		< CAPACITOR >			
C101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C105	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C106	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C108	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C109	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C112	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C115	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C117	1-124-779-00	ELECT CHIP	10uF	20%	16V
C118	1-124-779-00	ELECT CHIP	10uF	20%	16V
C119	1-124-779-00	ELECT CHIP	10uF	20%	16V
C120	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C121	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C122	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C123	1-165-908-11	CERAMIC CHIP	1uF	10%	10V

☆ New part of EEP ROM (IC103) on the DMB10 board cannot be used. Therefore, if the mounted DMB10 board (A-1122-695-A, etc.) is replaced, exchange new EEP ROM (IC103) with that used before the replacement.

Ref. No.	Part No.	Description			Remark
C124	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C125	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C127	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C128	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C129	1-124-779-00	ELECT CHIP	10uF	20%	16V
C130	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C131	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C132	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C133	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C135	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C136	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C137	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C138	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C139	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C140	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C141	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C142	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C143	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C144	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C145	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C146	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C147	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C148	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C149	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C150	1-124-779-00	ELECT CHIP	10uF	20%	16V
C151	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C152	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C153	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C154	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C155	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C156	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C158	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C159	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C160	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C161	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C162	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C163	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C164	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C167	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C170	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C171	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C172	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C173	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C174	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C175	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C176	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C177	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C178	1-126-208-21	ELECT CHIP	47uF	20%	4V
C179	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C180	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C181	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C182	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C184	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C187	1-126-208-21	ELECT CHIP	47uF	20%	4V
C188	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C189	1-128-934-91	CERAMIC CHIP	0.33uF	20%	10V

Ref. No.	Part No.	Description			Remark
C190	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C191	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C192	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C193	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C195	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C196	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C205	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C206	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C208	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C209	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C210	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C211	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C212	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C214	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C215	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C217	1-126-204-11	ELECT CHIP	47uF	20%	16V
C218	1-124-779-00	ELECT CHIP	10uF	20%	16V
C219	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C220	1-124-779-00	ELECT CHIP	10uF	20%	16V
C221	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C222	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C223	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C224	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C225	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C226	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C233	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C301	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C302	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C305	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C306	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C307	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C402	1-126-204-11	ELECT CHIP	47uF	20%	16V
C403	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C3601	1-117-370-11	CERAMIC CHIP	10uF		10V
C3602	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3603	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3605	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C3606	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3607	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3608	1-124-779-00	ELECT CHIP	10uF	20%	16V
C3609	1-124-779-00	ELECT CHIP	10uF	20%	16V
C3610	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3611	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3621	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3701	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3702	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3703	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3704	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3705	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3706	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3707	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3708	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3711	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3712	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3713	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3714	1-162-962-11	CERAMIC CHIP	470PF	10%	50V

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Ref. No.	Part No.	Description			Remark
C3721	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3722	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3723	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3724	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3731	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3732	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3733	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3734	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3741	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3742	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3743	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3744	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3751	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3752	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3753	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3754	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3761	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3762	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3763	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3764	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3771	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3772	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3773	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3774	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3781	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C3782	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3783	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3784	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C3801	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C3802	1-117-370-11	CERAMIC CHIP	10uF		10V
C3803	1-124-779-00	ELECT CHIP	10uF	20%	16V (TH)
C3803	1-126-209-11	ELECT CHIP	100uF	20%	4V (EXCEPT TH)
C3804	1-124-779-00	ELECT CHIP	10uF	20%	16V (TH)
C3804	1-126-205-11	ELECT CHIP	47uF	20%	6.3V (EXCEPT TH)
C3805	1-126-208-21	ELECT CHIP	47uF	20%	4V (EXCEPT TH)
		< CONNECTOR >			
CN101	1-815-763-32	CONNECTOR, FFC/FPC 24P			
CN103	1-784-365-21	CONNECTOR, FFC/FPC 5P			
* CN105	1-770-470-21	PIN, CONNECTOR (PC BOARD) 6P			
CN106	1-793-989-21	FFC/CONNECTOR, FPC (LIF (NON-ZIF)) 13P			
* CN201	1-770-470-21	PIN, CONNECTOR (PC BOARD) 6P			
CN202	1-784-365-21	CONNECTOR, FFC/FPC 5P			
CN301	1-793-989-21	FFC/CONNECTOR, FPC (LIF (NON-ZIF)) 13P			
CN302	1-778-691-11	CONNECTOR, FFC/FPC 19P			
CN401	1-779-993-11	PIN, CONNECTOR (PWB) 5P			
		< DIODE >			
D1001	8-719-058-24	DIODE RB501V-40TE-17			
D3501	8-719-988-61	DIODE 1SS355TE-17			
D3502	8-719-988-61	DIODE 1SS355TE-17			
D3601	8-719-988-61	DIODE 1SS355TE-17			
D3602	8-719-988-61	DIODE 1SS355TE-17			

Ref. No.	Part No.	Description	Remark
		< FERRITE BEAD >	
FB111	1-414-226-21	INDUCTOR, FERRITE BEAD	
FB112	1-414-226-21	INDUCTOR, FERRITE BEAD	
FB113	1-414-226-21	INDUCTOR, FERRITE BEAD	
FB114	1-414-226-21	INDUCTOR, FERRITE BEAD	
FB115	1-414-226-21	INDUCTOR, FERRITE BEAD	
FB401	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB402	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB403	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB404	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB405	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB406	1-469-324-21	FERRITE, EMI (SMD) (2012)	
		< FLUORESCENT INDICATOR >	
FL101	1-234-177-21	FILTER, CHIP EMI	
FL104	1-234-177-21	FILTER, CHIP EMI	
FL105	1-234-177-21	FILTER, CHIP EMI	
FL106	1-234-177-21	FILTER, CHIP EMI	
FL107	1-234-177-21	FILTER, CHIP EMI	
FL108	1-234-177-21	FILTER, CHIP EMI	
FL401	1-234-177-21	FILTER, CHIP EMI	
FL402	1-233-893-21	FILTER, CHIP EMI	
FL403	1-234-177-21	FILTER, CHIP EMI	
		< IC >	
IC101	6-805-252-01	IC MBM29DL32TF70-OBA3-0501UC	(AR, E51)
IC101	6-805-253-01	IC MBM29DL32TF70-OBA3-0501CE	(E15, E3, EA, E12, E13, AUS)
IC101	6-805-254-01	IC MBM29DL32TF70-OBA3-0501GA	(PL, TH, SP)
IC102	6-706-727-01	IC CXD9804R	
☆ IC103	(Not supplied)	IC BR24L64F-WE2	
IC104	6-706-346-01	IC A2V64S40DTP-G75-T	
IC105	6-702-302-01	IC TK11133CSCL-G	
IC106	6-708-153-01	IC PQ018EN01ZPH	
IC107	6-702-302-01	IC TK11133CSCL-G	
IC201	6-704-524-01	IC FAN8036L	
IC301	6-704-222-01	IC AK4358VQ-L	
IC3601	6-707-608-01	IC PCM1803DBR	
IC3711	8-759-359-49	IC NJM3414AV (TE2)	
IC3731	8-759-359-49	IC NJM3414AV (TE2)	
IC3751	8-759-359-49	IC NJM3414AV (TE2)	
IC3771	8-759-359-49	IC NJM3414AV (TE2)	
		< COIL >	
L3601	1-469-555-21	INDUCTOR 10uH	
L3602	1-469-555-21	INDUCTOR 10uH	
		< TRANSISTOR >	
Q101	6-550-008-01	TRANSISTOR UM6K1N-TN	
Q102	6-550-653-01	TRANSISTOR QST8TR	
Q103	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q2001	8-729-025-28	TRANSISTOR 2SK1828	
Q3801	8-729-230-49	TRANSISTOR 2SC2712-YG	
		< RESISTOR >	
R101	1-216-809-11	METAL CHIP 100 5%	1/10W

☆ IC103 (EEP ROM) can not be replaced individually.
Replace it with DMB10 board assembly for service.

Ref. No.	Part No.	Description			Remark
R104	1-216-864-11	SHORT CHIP	0		
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R107	1-216-833-11	METAL CHIP	10K	5%	1/10W
R108	1-216-857-11	METAL CHIP	1M	5%	1/10W
R109	1-216-864-11	SHORT CHIP	0		
R110	1-216-841-11	METAL CHIP	47K	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R113	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R114	1-216-845-11	METAL CHIP	100K	5%	1/10W
R115	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R116	1-216-821-11	METAL CHIP	1K	5%	1/10W
R117	1-216-841-11	METAL CHIP	47K	5%	1/10W
R118	1-216-801-11	METAL CHIP	22	5%	1/10W
R120	1-216-801-11	METAL CHIP	22	5%	1/10W
R121	1-216-801-11	METAL CHIP	22	5%	1/10W
R123	1-216-864-11	SHORT CHIP	0		
R124	1-216-841-11	METAL CHIP	47K	5%	1/10W
R126	1-216-864-11	SHORT CHIP	0		
R127	1-216-809-11	METAL CHIP	100	5%	1/10W
R133	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R134	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R135	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R136	1-216-835-11	METAL CHIP	15K	5%	1/10W
R138	1-216-845-11	METAL CHIP	100K	5%	1/10W
R141	1-218-916-11	METAL CHIP	750K	0.5%	1/10W
R142	1-216-845-11	METAL CHIP	100K	5%	1/10W
R143	1-216-809-11	METAL CHIP	100	5%	1/10W
R144	1-216-864-11	SHORT CHIP	0		
R146	1-216-805-11	METAL CHIP	47	5%	1/10W
R151	1-216-805-11	METAL CHIP	47	5%	1/10W
R152	1-216-864-11	SHORT CHIP	0		
R153	1-216-805-11	METAL CHIP	47	5%	1/10W
R155	1-216-805-11	METAL CHIP	47	5%	1/10W
R160	1-216-805-11	METAL CHIP	47	5%	1/10W
R161	1-216-809-11	METAL CHIP	100	5%	1/10W
R164	1-216-809-11	METAL CHIP	100	5%	1/10W
R169	1-216-833-11	METAL CHIP	10K	5%	1/10W
R187	1-216-864-11	SHORT CHIP	0		
R189	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R190	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R191	1-216-821-11	METAL CHIP	1K	5%	1/10W
R192	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R193	1-216-821-11	METAL CHIP	1K	5%	1/10W
R195	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R196	1-216-864-11	SHORT CHIP	0		
R197	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R204	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R206	1-216-833-11	METAL CHIP	10K	5%	1/10W
R207	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R208	1-216-839-11	METAL CHIP	33K	5%	1/10W
R209	1-216-839-11	METAL CHIP	33K	5%	1/10W
R210	1-216-841-11	METAL CHIP	47K	5%	1/10W
R212	1-216-833-11	METAL CHIP	10K	5%	1/10W
R213	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R214	1-216-835-11	METAL CHIP	15K	5%	1/10W
R215	1-216-834-11	METAL CHIP	12K	5%	1/10W
R216	1-216-834-11	METAL CHIP	12K	5%	1/10W
R219	1-216-838-11	METAL CHIP	27K	5%	1/10W
R220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R221	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R222	1-216-839-11	METAL CHIP	33K	5%	1/10W
R223	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R224	1-216-833-11	METAL CHIP	10K	5%	1/10W
R225	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R226	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R227	1-216-864-11	SHORT CHIP	0		
R228	1-216-864-11	SHORT CHIP	0		
R230	1-218-893-11	METAL CHIP	82K	0.5%	1/10W
R231	1-218-875-11	METAL CHIP	15K	0.5%	1/10W
R232	1-218-877-11	METAL CHIP	18K	0.5%	1/10W
R233	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R234	1-216-833-11	METAL CHIP	10K	5%	1/10W
R236	1-216-821-11	METAL CHIP	1K	5%	1/10W
R237	1-216-821-11	METAL CHIP	1K	5%	1/10W
R238	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R239	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R243	1-216-809-11	METAL CHIP	100	5%	1/10W
R246	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R247	1-216-821-11	METAL CHIP	1K	5%	1/10W
R308	1-216-864-11	SHORT CHIP	0		
R314	1-216-809-11	METAL CHIP	100	5%	1/10W
R319	1-216-864-11	SHORT CHIP	0		
R1101	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1102	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R1103	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1107	1-216-864-11	SHORT CHIP	0		
R1108	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT TH)
R1108	1-216-864-11	SHORT CHIP	0 (TH)		
R1109	1-216-864-11	SHORT CHIP	0		
R1110	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R1111	1-216-864-11	SHORT CHIP	0		
R1120	1-216-864-11	SHORT CHIP	0		
R1121	1-216-864-11	SHORT CHIP	0		
R1122	1-216-864-11	SHORT CHIP	0		
R1123	1-216-864-11	SHORT CHIP	0		
R1124	1-216-864-11	SHORT CHIP	0		
R1125	1-216-864-11	SHORT CHIP	0		
R1129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1133	1-216-864-11	SHORT CHIP	0		
R1134	1-216-864-11	SHORT CHIP	0		
R1150	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1151	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1152	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1168	1-216-817-11	METAL CHIP	470	5%	1/10W
R1502	1-216-864-11	SHORT CHIP	0		
R1504	1-216-864-11	SHORT CHIP	0		
R1524	1-216-864-11	SHORT CHIP	0		
R1526	1-216-864-11	SHORT CHIP	0		
R1527	1-216-864-11	SHORT CHIP	0		

DMB10

Ref. No.	Part No.	Description			Remark
R1530	1-216-864-11	SHORT CHIP	0		
R1531	1-216-864-11	SHORT CHIP	0		
R1540	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1543	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1545	1-216-864-11	SHORT CHIP	0		
R1546	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1547	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1548	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1549	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1550	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1553	1-216-864-11	SHORT CHIP	0		
R1554	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1555	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1557	1-216-809-11	METAL CHIP	100	5%	1/10W
R3501	1-216-864-11	SHORT CHIP	0		
R3601	1-216-809-11	METAL CHIP	100	5%	1/10W
R3602	1-216-809-11	METAL CHIP	100	5%	1/10W
R3603	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3605	1-216-864-11	SHORT CHIP	0		
R3606	1-216-864-11	SHORT CHIP	0		
R3607	1-216-864-11	SHORT CHIP	0		
R3609	1-216-864-11	SHORT CHIP	0		
R3611	1-216-809-11	METAL CHIP	100	5%	1/10W
R3621	1-216-809-11	METAL CHIP	100	5%	1/10W
R3651	1-216-864-11	SHORT CHIP	0		
R3652	1-216-864-11	SHORT CHIP	0		
R3653	1-216-864-11	SHORT CHIP	0		
R3711	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3712	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3713	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3714	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3715	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3716	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3717	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3718	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3719	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3721	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3722	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3723	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3724	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3725	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3726	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3727	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3728	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3729	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3731	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3732	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3733	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3734	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3735	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3736	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3737	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3738	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3739	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3741	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3742	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3743	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3744	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3745	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3746	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3747	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3748	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3749	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3751	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3752	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3753	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3754	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3755	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3756	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3757	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3758	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3759	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3761	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3762	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3763	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3764	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3765	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3766	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3767	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3768	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3769	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3771	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3772	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3773	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3774	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3775	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3776	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3777	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3778	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3779	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3781	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3782	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3783	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3784	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3785	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3786	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3787	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3788	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3789	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3801	1-216-864-11	SHORT CHIP	0		
R3802	1-216-864-11	SHORT CHIP	0		
R3803	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3804	1-216-836-11	METAL CHIP	18K	5%	1/10W
R3805	1-216-821-11	METAL CHIP	1K	5%	1/10W
R4701	1-216-864-11	SHORT CHIP	0		
R4702	1-216-864-11	SHORT CHIP	0		
R4703	1-216-864-11	SHORT CHIP	0		
R4704	1-216-864-11	SHORT CHIP	0		
R4705	1-216-864-11	SHORT CHIP	0		
R4706	1-216-864-11	SHORT CHIP	0		
		< COMPOSITION CIRCUIT BLOCK >			
RB103	1-234-795-21	RES, NETWORK 0X4 (2010)			

Ref. No.	Part No.	Description			Remark
RB104	1-234-795-21	RES, NETWORK 0X4 (2010)			
RB105	1-234-371-21	RES, NETWORK 47 (1005X4)			
RB106	1-234-371-21	RES, NETWORK 47 (1005X4)			
RB107	1-234-370-21	RES, NETWORK 22 (1005X4)			
RB108	1-234-370-21	RES, NETWORK 22 (1005X4)			
RB111	1-234-795-21	RES, NETWORK 0X4 (2010)			
RB112	1-234-370-21	RES, NETWORK 22 (1005X4)			
RB113	1-234-370-21	RES, NETWORK 22 (1005X4)			
		< VIBRATOR >			
X101	1-781-867-21	VIBRATOR, CRYSTAL (27MHz)			
**********					
	A-1099-242-A	FL BOARD, COMPLETE (EXCEPT TH)			
	A-1122-759-A	FL BOARD, COMPLETE (TH)			
		**********			
*	4-921-941-11	CUSHION (FL)			
		< CAPACITOR >			
C601	1-128-131-11	ELECT	22uF	20%	50V
C602	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C603	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C604	1-126-969-11	ELECT	220uF	20%	50V
C605	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C606	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C610	1-126-157-11	ELECT	10uF	20%	16V
C616	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C617	1-124-261-00	ELECT	10uF	20%	50V
C620	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C633	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C635	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C636	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C641	1-124-589-11	ELECT	47uF	20%	16V
C642	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
		< CONNECTOR >			
CN601	1-770-530-11	CONNECTOR, FFC/FPC 23P			
CN602	1-785-338-11	PIN, CONNECTOR (LIGHT ANGLE) 12P			
		< DIODE >			
D601	8-719-988-61	DIODE 1SS355TE-17			
D602	8-719-988-61	DIODE 1SS355TE-17			
D603	8-719-988-61	DIODE 1SS355TE-17			
D604	8-719-988-61	DIODE 1SS355TE-17			
D605	8-719-059-18	DIODE RD6.2FM-T1			
D606	8-719-988-61	DIODE 1SS355TE-17			
D607	8-719-988-61	DIODE 1SS355TE-17			
D608	8-719-988-61	DIODE 1SS355TE-17			
D641	8-719-058-04	DIODE SEL5223S-TP15 (I/⏻)			
		< FLUORESCENT INDICATOR >			
FL601	1-519-791-11	VACUUM FLUORESCENT DISPLAYS			
		< IC >			
IC610	6-705-899-01	IC ML9208-03MBZ03B			
IC640	6-600-309-01	IC RPM7240-H9			

Ref. No.	Part No.	Description			Remark
		< SHORT >			
JR601	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L601	1-410-671-31	INDUCTOR	47uH		
		< TRANSISTOR >			
Q602	6-550-065-01	TRANSISTOR	CPH5504-TL-E		
Q610	8-729-027-56	TRANSISTOR	DTC143TKA-T146		
Q611	8-729-027-56	TRANSISTOR	DTC143TKA-T146		
Q641	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R601	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R602	1-216-837-11	METAL CHIP	22K	5%	1/10W
R603	1-216-809-11	METAL CHIP	100	5%	1/10W
R604	1-216-809-11	METAL CHIP	100	5%	1/10W
R605	1-215-871-11	METAL OXIDE	2.2K	5%	1W
R606	1-216-837-11	METAL CHIP	22K	5%	1/10W
R611	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R612	1-216-809-11	METAL CHIP	100	5%	1/10W
R613	1-216-809-11	METAL CHIP	100	5%	1/10W
R614	1-216-809-11	METAL CHIP	100	5%	1/10W
R615	1-216-809-11	METAL CHIP	100	5%	1/10W
R617	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R618	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R640	1-216-805-11	METAL CHIP	47	5%	1/10W
R641	1-216-814-11	METAL CHIP	270	5%	1/10W
R642	1-216-817-11	METAL CHIP	470	5%	1/10W
R643	1-216-817-11	METAL CHIP	470	5%	1/10W
R645	1-216-819-11	METAL CHIP	680	5%	1/10W
R646	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< SWITCH >			
S642	1-762-875-21	SWITCH, KEYBOARD (I/⏻)			
S643	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)			
S644	1-762-875-21	SWITCH, KEYBOARD (PROGRESSIVE/DIRECTION)			
S645	1-762-875-21	SWITCH, KEYBOARD (SA-CD/CD)			
S646	1-762-875-21	SWITCH, KEYBOARD (⏏)			
		< TRANSFORMER >			
T601	1-443-627-11	DC-DC CONVERTER TRANSFORMER			
**********					
		FUNCTION SW BOARD			
		**********			
		< CAPACITOR >			
C645	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C664	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C665	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C666	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C667	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C668	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V

FUNCTION SW **MAIN**

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D664	6-500-329-01	DIODE SELU5E23C-PTP15 (VIDEO/SAT)			
D665	6-500-329-01	DIODE SELU5E23C-PTP15 (DVD)			
D666	6-500-329-01	DIODE SELU5E23C-PTP15 (TAPE A/B)			
D667	6-500-329-01	DIODE SELU5E23C-PTP15 (TUNER/BAND)			
D668	6-500-329-01	DIODE SELU5E23C-PTP15 (SOUND FIELD)			
		< TRANSISTOR >			
Q664	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q665	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q666	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q667	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q668	8-729-027-43	TRANSISTOR DTC114EKA-T146			
		< RESISTOR >			
R647	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R648	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R649	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R650	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R651	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R652	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R653	1-216-819-11	METAL CHIP	680	5%	1/10W
R654	1-216-821-11	METAL CHIP	1K	5%	1/10W
R655	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R656	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R657	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R658	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R659	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R661	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R662	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R663	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R664	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R665	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R666	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R667	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R668	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R669	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R670	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R671	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R672	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
		< SWITCH >			
S650	1-786-880-11	MULTIWAY SWITCH (DVD/ VIDEO/SAT / TUNER/BAND TAPE A/B)(EXCEPT TH)			
S651	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
S652	1-762-875-21	SWITCH, KEYBOARD (● REC PAUSE/START)			
S653	1-762-875-21	SWITCH, KEYBOARD (DSGX)			
S654	1-762-875-21	SWITCH, KEYBOARD (SOUND FIELD)			
S655	1-762-875-21	SWITCH, KEYBOARD (EQ SELECT)			
S656	1-786-528-11	SWITCH, ROTARY (⧏⧐ / ■ / PRESET – / ▮▮ / PRESET +)			
S661	1-418-632-11	ENCODER, ROTARY (VOLUME)			

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Ref. No.	Part No.	Description			Remark
	A-1099-233-A	MAIN BOARD, COMPLETE (PL, SP)			
	A-1122-677-A	MAIN BOARD, COMPLETE (TH)			
	A-1122-687-A	MAIN BOARD, COMPLETE (E15, E3)			
	A-1122-693-A	MAIN BOARD, COMPLETE (AUS)			
	A-1122-793-A	MAIN BOARD, COMPLETE (E12)			
	A-1122-821-A	MAIN BOARD, COMPLETE (E13)			
	A-1122-833-A	MAIN BOARD, COMPLETE (EA)			
	A-1122-868-A	MAIN BOARD, COMPLETE (AR, E51)			
		**********			
		< CAPACITOR >			
C101	1-124-261-00	ELECT	10uF	20%	50V
C102	1-124-261-00	ELECT	10uF	20%	50V
C103	1-124-261-00	ELECT	10uF	20%	50V
C104	1-124-261-00	ELECT	10uF	20%	50V
C105	1-124-261-00	ELECT	10uF	20%	50V
C106	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C107	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C108	1-126-964-11	ELECT	10uF	20%	50V
C109	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C110	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C111	1-126-964-11	ELECT	10uF	20%	50V
C112	1-136-167-00	FILM	0.15uF	5%	50V
C113	1-136-170-00	FILM	0.27uF	5%	50V
C114	1-124-261-00	ELECT	10uF	20%	50V
C119	1-128-111-11	ELECT	100uF	20%	25V
C120	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C121	1-126-926-11	ELECT	1000uF	20%	10V
C123	1-124-584-00	ELECT	100uF	20%	10V
C124	1-124-261-00	ELECT	10uF	20%	50V
C125	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C126	1-104-658-91	ELECT	100uF	20%	10V
C129	1-126-964-11	ELECT	10uF	20%	50V
C133	1-126-964-11	ELECT	10uF	20%	50V
C134	1-126-967-11	ELECT	47uF	20%	50V
C140	1-126-960-11	ELECT	1uF	20%	50V
C151	1-124-261-00	ELECT	10uF	20%	50V
C152	1-126-964-11	ELECT	10uF	20%	50V
C153	1-126-964-11	ELECT	10uF	20%	50V
C154	1-124-261-00	ELECT	10uF	20%	50V
C155	1-124-261-00	ELECT	10uF	20%	50V
C156	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C157	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C158	1-126-964-11	ELECT	10uF	20%	50V
C159	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C160	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C161	1-126-964-11	ELECT	10uF	20%	50V
C162	1-136-167-00	FILM	0.15uF	5%	50V
C163	1-136-170-00	FILM	0.27uF	5%	50V
C164	1-124-261-00	ELECT	10uF	20%	50V
C165	1-126-964-11	ELECT	10uF	20%	50V
C166	1-104-658-91	ELECT	100uF	20%	10V
C170	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C171	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C172	1-124-261-00	ELECT	10uF	20%	50V
C173	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C174	1-124-261-00	ELECT	10uF	20%	50V
C175	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C177	1-126-923-91	ELECT	220uF	20%	10V
C179	1-124-261-00	ELECT	10uF	20%	50V
C180	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C181	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C182	1-124-261-00	ELECT	10uF	20%	50V
C183	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C184	1-124-261-00	ELECT	10uF	20%	50V
C187	1-126-923-91	ELECT	220uF	20%	10V
C189	1-124-261-00	ELECT	10uF	20%	50V
C190	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C193	1-126-926-11	ELECT	1000uF	20%	10V
C194	1-104-658-91	ELECT	100uF	20%	10V
C198	1-126-960-11	ELECT	1uF	20%	50V
C201	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C227	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C242	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C244	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C267	1-216-841-11	METAL CHIP	47K	5%	1/10W (EXCEPT TH)
C268	1-216-841-11	METAL CHIP	47K	5%	1/10W (EXCEPT TH)
C269	1-126-961-11	ELECT	2.2uF	20%	50V
C270	1-126-961-11	ELECT	2.2uF	20%	50V
C271	1-104-658-91	ELECT	100uF	20%	10V
C272	1-104-658-91	ELECT	100uF	20%	10V
C273	1-104-658-91	ELECT	100uF	20%	10V
C274	1-104-658-91	ELECT	100uF	20%	10V
C275	1-104-658-91	ELECT	100uF	20%	10V
C276	1-104-658-91	ELECT	100uF	20%	10V
C292	1-136-497-81	FILM	0.1uF	5%	50V
C293	1-136-497-81	FILM	0.1uF	5%	50V
C294	1-126-964-11	ELECT	10uF	20%	50V
C400	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C401	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C402	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C403	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C410	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C411	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C412	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C416	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C417	1-104-656-11	ELECT	2200uF	20%	6.3V
C462	1-104-658-91	ELECT	100uF	20%	10V
C463	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C475	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C476	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C497	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C498	1-126-964-11	ELECT	10uF	20%	50V
C499	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-779-281-11	CONNECTOR, FFC (LIF (NON-ZIF)) 13P			
CN104	1-569-927-11	SOCKET, CONNECTOR 9P			
CN105	1-569-939-31	SOCKET, CONNECTOR 23P			
CN107	1-691-907-11	PIN, CONNECTOR 15P (SYSTEM CONTROL 2)			
CN109	1-569-939-31	SOCKET, CONNECTOR 23P			
CN110	1-770-827-21	CONNECTOR, BOARD TO BOARD 16P			
CN111	1-770-827-21	CONNECTOR, BOARD TO BOARD 16P			
CN401	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P			

Ref. No.	Part No.	Description	Remark
CN402	1-785-322-11	PIN, CONNECTOR (STRAIGHT) 10P	
		< DIODE >	
D191	8-719-058-24	DIODE RB501V-40TE-17	
D192	8-719-058-24	DIODE RB501V-40TE-17	
D193	8-719-988-61	DIODE 1SS355TE-17	
D201	8-719-988-61	DIODE 1SS355TE-17	
D202	8-719-988-61	DIODE 1SS355TE-17	
D292	8-719-988-61	DIODE 1SS355TE-17	
D293	8-719-988-61	DIODE 1SS355TE-17	
D294	8-719-988-61	DIODE 1SS355TE-17	
D295	8-719-988-61	DIODE 1SS355TE-17	
D402	8-719-988-61	DIODE 1SS355TE-17	
D403	8-719-988-61	DIODE 1SS355TE-17	
		< EARTH TERMINAL >	
EP102	1-537-738-21	TERMINAL, GROUND	
		< FERRITE BEAD >	
FB416	1-500-445-21	FERRITE, EMI (SMD) (2012)	
FB462	1-216-864-11	SHORT CHIP 0	
FB499	1-216-864-11	SHORT CHIP 0	
		< IC >	
IC101	6-703-650-11	IC M61529FP-D60G	
IC103	8-759-545-66	IC NJM3414AMP (TE2)	
IC251	8-759-532-64	IC M62703SL-TP	
IC401	6-805-074-01	IC M30622MEP-A04FPU0	
		< JACK >	
J101	1-794-212-11	JACK, PIN 4P (VIDEO/SAT)	
		< SHORT >	
JR1	1-216-864-11	SHORT CHIP 0	
JR100	1-216-296-11	SHORT CHIP 0	
JR102	1-216-864-11	SHORT CHIP 0	
JR103	1-216-864-11	SHORT CHIP 0	
JR104	1-216-864-11	SHORT CHIP 0	
JR105	1-216-296-11	SHORT CHIP 0	
JR106	1-216-296-11	SHORT CHIP 0	
JR107	1-216-864-11	SHORT CHIP 0	
JR108	1-216-296-11	SHORT CHIP 0	
JR110	1-216-296-11	SHORT CHIP 0	
JR111	1-216-864-11	SHORT CHIP 0	
JR112	1-216-864-11	SHORT CHIP 0	
JR113	1-216-864-11	SHORT CHIP 0	
JR418	1-216-864-11	SHORT CHIP 0	
JR440	1-216-864-11	SHORT CHIP 0	
		< TRANSISTOR >	
Q101	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
Q105	8-729-802-80	TRANSISTOR 2SC3661	
Q151	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
Q155	8-729-802-80	TRANSISTOR 2SC3661	
Q161	8-729-802-80	TRANSISTOR 2SC3661	
Q171	8-729-802-80	TRANSISTOR 2SC3661	
Q181	8-729-802-80	TRANSISTOR 2SC3661	

MAIN

Ref. No.	Part No.	Description			Remark
Q182	8-729-026-68	TRANSISTOR	2SD2525 (TP)		
Q191	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R		
Q270	8-729-802-80	TRANSISTOR	2SC3661		
Q271	8-729-802-80	TRANSISTOR	2SC3661		
Q272	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q273	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q274	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q275	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q276	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q277	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q278	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q279	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q293	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R101	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R102	1-216-833-11	METAL CHIP	10K	5%	1/10W
R103	1-216-833-11	METAL CHIP	10K	5%	1/10W
R104	1-216-821-11	METAL CHIP	1K	5%	1/10W
R105	1-216-845-11	METAL CHIP	100K	5%	1/10W
R106	1-216-864-11	SHORT CHIP	0		
R107	1-216-821-11	METAL CHIP	1K	5%	1/10W
R108	1-216-841-11	METAL CHIP	47K	5%	1/10W
R111	1-216-833-11	METAL CHIP	10K	5%	1/10W
R112	1-216-833-11	METAL CHIP	10K	5%	1/10W
R113	1-216-833-11	METAL CHIP	10K	5%	1/10W
R114	1-216-864-11	SHORT CHIP	0		
R115	1-216-864-11	SHORT CHIP	0		
R119	1-216-841-11	METAL CHIP	47K	5%	1/10W
R120	1-216-809-11	METAL CHIP	100	5%	1/10W
R122	1-216-809-11	METAL CHIP	100	5%	1/10W
R135	1-216-809-11	METAL CHIP	100	5%	1/10W
R140	1-216-857-11	METAL CHIP	1M	5%	1/10W
R145	1-216-809-11	METAL CHIP	100	5%	1/10W
R149	1-216-801-11	METAL CHIP	22	5%	1/10W
R150	1-216-841-11	METAL CHIP	47K	5%	1/10W
R151	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R152	1-216-833-11	METAL CHIP	10K	5%	1/10W
R153	1-216-833-11	METAL CHIP	10K	5%	1/10W
R154	1-216-821-11	METAL CHIP	1K	5%	1/10W
R155	1-216-845-11	METAL CHIP	100K	5%	1/10W
R156	1-216-864-11	SHORT CHIP	0		
R157	1-216-821-11	METAL CHIP	1K	5%	1/10W
R158	1-216-841-11	METAL CHIP	47K	5%	1/10W
R159	1-216-801-11	METAL CHIP	22	5%	1/10W
R160	1-216-841-11	METAL CHIP	47K	5%	1/10W
R161	1-216-833-11	METAL CHIP	10K	5%	1/10W
R166	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R167	1-218-707-11	METAL CHIP	4.3K	0.5%	1/10W
R168	1-216-815-11	METAL CHIP	330	5%	1/10W
R169	1-216-841-11	METAL CHIP	47K	5%	1/10W
R170	1-216-809-11	METAL CHIP	100	5%	1/10W
R171	1-216-821-11	METAL CHIP	1K	5%	1/10W
R172	1-216-845-11	METAL CHIP	100K	5%	1/10W
R173	1-216-821-11	METAL CHIP	1K	5%	1/10W
R174	1-216-845-11	METAL CHIP	100K	5%	1/10W
R175	1-216-833-11	METAL CHIP	10K	5%	1/10W
R176	1-216-841-11	METAL CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R177	1-216-845-11	METAL CHIP	100K	5%	1/10W
R178	1-216-821-11	METAL CHIP	1K	5%	1/10W
R179	1-216-801-11	METAL CHIP	22	5%	1/10W
R180	1-216-833-11	METAL CHIP	10K	5%	1/10W
R181	1-216-821-11	METAL CHIP	1K	5%	1/10W
R182	1-216-845-11	METAL CHIP	100K	5%	1/10W
R183	1-216-821-11	METAL CHIP	1K	5%	1/10W
R184	1-216-845-11	METAL CHIP	100K	5%	1/10W
R185	1-216-833-11	METAL CHIP	10K	5%	1/10W
R186	1-216-841-11	METAL CHIP	47K	5%	1/10W
R187	1-216-845-11	METAL CHIP	100K	5%	1/10W
R188	1-216-821-11	METAL CHIP	1K	5%	1/10W
R189	1-216-801-11	METAL CHIP	22	5%	1/10W
R190	1-216-833-11	METAL CHIP	10K	5%	1/10W
R193	1-216-837-11	METAL CHIP	22K	5%	1/10W
R194	1-216-843-11	METAL CHIP	68K	5%	1/10W
R195	1-216-809-11	METAL CHIP	100	5%	1/10W
R196	1-216-815-11	METAL CHIP	330	5%	1/10W
R197	1-216-821-11	METAL CHIP	1K	5%	1/10W
R198	1-216-821-11	METAL CHIP	1K	5%	1/10W
R199	1-216-845-11	METAL CHIP	100K	5%	1/10W
R241	1-216-864-11	SHORT CHIP	0		
R265	1-216-841-11	METAL CHIP	47K	5%	1/10W
R266	1-216-841-11	METAL CHIP	47K	5%	1/10W
R267	1-216-841-11	METAL CHIP	47K	5%	1/10W (TH)
R268	1-216-841-11	METAL CHIP	47K	5%	1/10W (TH)
R269	1-216-845-11	METAL CHIP	100K	5%	1/10W
R270	1-216-821-11	METAL CHIP	1K	5%	1/10W
R271	1-216-821-11	METAL CHIP	1K	5%	1/10W
R272	1-216-837-11	METAL CHIP	22K	5%	1/10W
R273	1-216-813-11	METAL CHIP	220	5%	1/10W
R274	1-216-821-11	METAL CHIP	1K	5%	1/10W
R275	1-216-821-11	METAL CHIP	1K	5%	1/10W
R276	1-216-837-11	METAL CHIP	22K	5%	1/10W
R277	1-216-813-11	METAL CHIP	220	5%	1/10W
R278	1-216-837-11	METAL CHIP	22K	5%	1/10W
R279	1-216-809-11	METAL CHIP	100	5%	1/10W
R280	1-216-845-11	METAL CHIP	100K	5%	1/10W
R281	1-216-845-11	METAL CHIP	100K	5%	1/10W
R282	1-216-813-11	METAL CHIP	220	5%	1/10W
R283	1-216-837-11	METAL CHIP	22K	5%	1/10W
R284	1-216-845-11	METAL CHIP	100K	5%	1/10W
R291	1-216-864-11	SHORT CHIP	0		
R294	1-216-833-11	METAL CHIP	10K	5%	1/10W
R296	1-216-864-11	SHORT CHIP	0		
R297	1-216-821-11	METAL CHIP	1K	5%	1/10W
R298	1-216-813-11	METAL CHIP	220	5%	1/10W
R299	1-216-833-11	METAL CHIP	10K	5%	1/10W
R400	1-216-809-11	METAL CHIP	100	5%	1/10W
R402	1-216-833-11	METAL CHIP	10K	5%	1/10W
R403	1-216-833-11	METAL CHIP	10K	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-833-11	METAL CHIP	10K	5%	1/10W
R409	1-216-833-11	METAL CHIP	10K	5%	1/10W
R410	1-216-833-11	METAL CHIP	10K	5%	1/10W
R411	1-216-851-11	METAL CHIP	330K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R412	1-216-833-11	METAL CHIP	10K	5%	1/10W
R413	1-216-864-11	SHORT CHIP	0		
R414	1-216-833-11	METAL CHIP	10K	5%	1/10W
R415	1-216-833-11	METAL CHIP	10K	5%	1/10W
R416	1-216-833-11	METAL CHIP	10K	5%	1/10W
R417	1-216-833-11	METAL CHIP	10K	5%	1/10W
R420	1-216-821-11	METAL CHIP	1K	5%	1/10W
R421	1-216-809-11	METAL CHIP	100	5%	1/10W
R422	1-216-809-11	METAL CHIP	100	5%	1/10W
R424	1-216-809-11	METAL CHIP	100	5%	1/10W
R426	1-216-809-11	METAL CHIP	100	5%	1/10W
R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R428	1-216-809-11	METAL CHIP	100	5%	1/10W
R429	1-216-809-11	METAL CHIP	100	5%	1/10W
R430	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R433	1-216-809-11	METAL CHIP	100	5%	1/10W
R434	1-216-833-11	METAL CHIP	10K	5%	1/10W
R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R437	1-216-809-11	METAL CHIP	100	5%	1/10W
R438	1-216-809-11	METAL CHIP	100	5%	1/10W
R439	1-216-809-11	METAL CHIP	100	5%	1/10W
R443	1-216-809-11	METAL CHIP	100	5%	1/10W
R444	1-216-809-11	METAL CHIP	100	5%	1/10W
R445	1-216-809-11	METAL CHIP	100	5%	1/10W
R446	1-216-809-11	METAL CHIP	100	5%	1/10W
R447	1-216-809-11	METAL CHIP	100	5%	1/10W
R448	1-216-809-11	METAL CHIP	100	5%	1/10W
R449	1-216-809-11	METAL CHIP	100	5%	1/10W
R450	1-216-809-11	METAL CHIP	100	5%	1/10W
R451	1-216-857-11	METAL CHIP	1M	5%	1/10W
R452	1-216-809-11	METAL CHIP	100	5%	1/10W
R453	1-216-833-11	METAL CHIP	10K	5%	1/10W
R454	1-216-809-11	METAL CHIP	100	5%	1/10W
R455	1-216-809-11	METAL CHIP	100	5%	1/10W
R456	1-216-809-11	METAL CHIP	100	5%	1/10W
R457	1-216-809-11	METAL CHIP	100	5%	1/10W
R458	1-216-821-11	METAL CHIP	1K	5%	1/10W
R459	1-216-821-11	METAL CHIP	1K	5%	1/10W
R460	1-216-809-11	METAL CHIP	100	5%	1/10W
R461	1-216-821-11	METAL CHIP	1K	5%	1/10W
R463	1-216-809-11	METAL CHIP	100	5%	1/10W
R465	1-216-809-11	METAL CHIP	100	5%	1/10W
R466	1-216-809-11	METAL CHIP	100	5%	1/10W
R467	1-216-809-11	METAL CHIP	100	5%	1/10W
R468	1-216-809-11	METAL CHIP	100	5%	1/10W
R469	1-216-809-11	METAL CHIP	100	5%	1/10W
R470	1-216-809-11	METAL CHIP	100	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-809-11	METAL CHIP	100	5%	1/10W
R473	1-216-809-11	METAL CHIP	100	5%	1/10W
R474	1-216-809-11	METAL CHIP	100	5%	1/10W
R475	1-216-809-11	METAL CHIP	100	5%	1/10W
R476	1-216-809-11	METAL CHIP	100	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-809-11	METAL CHIP	100	5%	1/10W
R483	1-216-809-11	METAL CHIP	100	5%	1/10W
R485	1-216-833-11	METAL CHIP	10K	5%	1/10W
R486	1-216-296-11	SHORT CHIP	0		
R487	1-216-809-11	METAL CHIP	100	5%	1/10W
R488	1-216-821-11	METAL CHIP	1K	5%	1/10W
R489	1-216-821-11	METAL CHIP	1K	5%	1/10W
R490	1-216-821-11	METAL CHIP	1K	5%	1/10W
R491	1-216-821-11	METAL CHIP	1K	5%	1/10W
R493	1-216-815-11	METAL CHIP	330	5%	1/10W (E15, E3)
R493	1-216-819-11	METAL CHIP	680	5%	1/10W (E12)
R493	1-216-821-11	METAL CHIP	1K	5%	1/10W (EA)
R493	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (AUS)
R493	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AR, E51, E13)
R493	1-216-864-11	SHORT CHIP	0 (PL, TH, SP)		
R494	1-216-817-11	METAL CHIP	470	5%	1/10W
R495	1-216-817-11	METAL CHIP	470	5%	1/10W
R496	1-216-811-11	METAL CHIP	150	5%	1/10W (E13)
R496	1-216-821-11	METAL CHIP	1K	5%	1/10W (AR, E51)
R496	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EXCEPT AR,E51,E13)
R497	1-216-833-11	METAL CHIP	10K	5%	1/10W
R498	1-216-835-11	METAL CHIP	15K	5%	1/10W
R499	1-216-835-11	METAL CHIP	15K	5%	1/10W
R535	1-216-841-11	METAL CHIP	47K	5%	1/10W
R543	1-216-833-11	METAL CHIP	10K	5%	1/10W
R545	1-216-833-11	METAL CHIP	10K	5%	1/10W
R547	1-216-833-11	METAL CHIP	10K	5%	1/10W

< VIBRATOR >

X401	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X402	1-795-058-21	VIBRATOR, CERAMIC (5MHz)			

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MIC BOARD

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< CAPACITOR >

C701	1-124-465-00	ELECT	0.47uF	20%	50V
C702	1-124-465-00	ELECT	0.47uF	20%	50V
C703	1-136-495-11	FILM	0.068uF	5%	50V
C704	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C705	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C706	1-126-160-11	ELECT	1uF	20%	50V
C708	1-124-589-11	ELECT	47uF	20%	16V
C709	1-124-589-11	ELECT	47uF	20%	16V
C710	1-136-495-11	FILM	0.068uF	5%	50V
C711	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C712	1-136-167-00	FILM	0.15uF	5%	50V
C713	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C714	1-126-160-11	ELECT	1uF	20%	50V
C715	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C716	1-124-257-00	ELECT	2.2uF	20%	50V

MIC **MS-203** **REGULATOR**

Ref. No.	Part No.	Description			Remark
C719	1-124-257-00	ELECT	2.2uF	20%	50V
C721	1-162-955-11	CERAMIC CHIP	150PF	5%	50V
C722	1-124-261-00	ELECT	10uF	20%	50V
C723	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C724	1-124-465-00	ELECT	0.47uF	20%	50V
C725	1-124-464-11	ELECT	0.22uF	20%	50V
C726	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C727	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C728	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C729	1-124-463-00	ELECT	0.1uF	20%	50V
C730	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C731	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C736	1-126-176-11	ELECT	220uF	20%	10V
C740	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C741	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
* CN701	1-564-724-11	PIN, CONNECTOR (SMALL TYPE) 8P			
		< DIODE >			
D702	8-719-069-54	DIODE UDZSTE-175.1B			
D703	8-719-988-61	DIODE 1SS355TE-17			
D704	8-719-988-61	DIODE 1SS355TE-17			
D705	8-719-988-61	DIODE 1SS355TE-17			
D706	8-719-988-61	DIODE 1SS355TE-17			
		< EARTH TERMINAL >			
EP701	1-537-738-21	TERMINAL, GROUND			
		< IC >			
IC701	8-759-496-41	IC M65850FP-E1			
IC702	8-759-710-97	IC NJM4565M-D			
		< JACK >			
J701	1-817-630-11	JACK (LARGE TYPE) (MIC 1)			
J702	1-817-630-11	JACK (LARGE TYPE) (MIC 2)			
J703	1-794-702-11	JACK, HEADPHONE (PHONES)			
		< RESISTOR >			
R710	1-216-835-11	METAL CHIP	15K	5%	1/10W
R711	1-216-835-11	METAL CHIP	15K	5%	1/10W
R712	1-216-864-11	SHORT CHIP	0		
R713	1-216-845-11	METAL CHIP	100K	5%	1/10W
R714	1-216-833-11	METAL CHIP	10K	5%	1/10W
R715	1-216-833-11	METAL CHIP	10K	5%	1/10W
R716	1-216-809-11	METAL CHIP	100	5%	1/10W
R718	1-216-847-11	METAL CHIP	150K	5%	1/10W
R719	1-216-833-11	METAL CHIP	10K	5%	1/10W
R720	1-216-809-11	METAL CHIP	100	5%	1/10W
R721	1-216-841-11	METAL CHIP	47K	5%	1/10W
R722	1-216-821-11	METAL CHIP	1K	5%	1/10W
R723	1-216-845-11	METAL CHIP	100K	5%	1/10W
R724	1-216-821-11	METAL CHIP	1K	5%	1/10W
R725	1-216-833-11	METAL CHIP	10K	5%	1/10W
R726	1-216-833-11	METAL CHIP	10K	5%	1/10W
R727	1-216-821-11	METAL CHIP	1K	5%	1/10W
R732	1-216-817-11	METAL CHIP	470	5%	1/10W
R733	1-216-837-11	METAL CHIP	22K	5%	1/10W
R734	1-216-837-11	METAL CHIP	22K	5%	1/10W
R735	1-216-837-11	METAL CHIP	22K	5%	1/10W
R736	1-216-817-11	METAL CHIP	470	5%	1/10W
R737	1-216-846-11	METAL CHIP	120K	5%	1/10W
R738	1-216-837-11	METAL CHIP	22K	5%	1/10W
R739	1-216-837-11	METAL CHIP	22K	5%	1/10W
R740	1-216-837-11	METAL CHIP	22K	5%	1/10W
R741	1-216-841-11	METAL CHIP	47K	5%	1/10W
R746	1-216-809-11	METAL CHIP	100	5%	1/10W
R747	1-216-864-11	SHORT CHIP	0		
R748	1-216-864-11	SHORT CHIP	0		
**********					
		MS-203 BOARD			
		**********			
		< CONNECTOR >			
CN001	1-815-412-11	CONNECTOR, FFC/FPC 5P			
		< SWITCH >			
S001	1-786-693-11	SWITCH, DETECTION (CHUCK/TRAY DETECT)			
**********					
	A-1099-244-A	REGULATOR BOARD, COMPLETE (EXCEPT TH)			
	A-1122-766-A	REGULATOR BOARD, COMPLETE (TH)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C501	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C503	1-124-261-00	ELECT	10uF	20%	50V
C506	1-128-131-11	ELECT	22uF	20%	50V
C509	1-124-261-00	ELECT	10uF	20%	50V
C510	1-124-257-00	ELECT	2.2uF	20%	50V
C511	1-124-257-00	ELECT	2.2uF	20%	50V
C521	1-124-584-00	ELECT	100uF	20%	10V
C522	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C523	1-128-131-11	ELECT	22uF	20%	50V
C551	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C553	1-124-261-00	ELECT	10uF	20%	50V
C556	1-128-131-11	ELECT	22uF	20%	50V
C559	1-124-261-00	ELECT	10uF	20%	50V
C583	1-126-160-11	ELECT	1uF	20%	50V
C584	1-126-925-91	ELECT	470uF	20%	10V
C585	1-124-584-00	ELECT	100uF	20%	10V
C586	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C587	1-130-483-00	MYLAR	0.01uF	5%	50V
C588	1-130-483-00	MYLAR	0.01uF	5%	50V
C589	1-124-261-00	ELECT	10uF	20%	50V
C590	1-128-131-11	ELECT	22uF	20%	50V
C905	1-130-483-00	MYLAR	0.01uF	5%	50V
C906	1-130-483-00	MYLAR	0.01uF	5%	50V
C907	1-119-939-51	ELECT	6800uF	20%	35V
C909	1-126-952-11	ELECT	1000uF	20%	35V
C910	1-137-852-21	ELECT	3300uF	20%	16V
C914	1-126-768-11	ELECT	2200uF	20%	16V
C915	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V

REGULATOR

Ref. No.	Part No.	Description			Remark
C919	1-126-952-11	ELECT	1000uF	20%	35V
C920	1-128-947-31	ELECT	3300uF	20%	10V
C922	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C923	1-126-916-11	ELECT	1000uF	20%	6.3V
C929	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN501	1-770-828-41	CONNECTOR, BOARD TO BOARD 16P			
CN502	1-770-828-41	CONNECTOR, BOARD TO BOARD 16P			
CN503	1-568-373-11	PIN, CONNECTOR 8P (SYSTEM CONTROL 1)			
CN504	1-794-568-11	PIN, CONNECTOR 12P (SYSTEM CONTROL 1)			
CN506	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
		< DIODE >			
D581	8-719-988-61	DIODE 1SS355TE-17			
D901	6-500-385-01	DIODE D3SBA20-4100			
D902	8-719-079-47	DIODE RK36LF-A4			
D903	8-719-079-47	DIODE RK36LF-A4			
		< EARTH TERMINAL >			
EP502	1-537-738-21	TERMINAL, GROUND			
EP901	1-537-738-21	TERMINAL, GROUND			
		< HEAT SINK >			
* HS901	4-931-401-01	HEAT SINK, V.OUT			
		< IC >			
IC501	8-759-939-73	IC BA3308			
IC581	8-759-100-96	IC uPC4558G2			
IC901	8-759-701-59	IC NJM78M09FA			
IC903	6-703-241-01	IC SI-8090JF			
IC906	8-759-445-59	IC BA033T			
IC913	6-700-812-01	IC SI-8050JF			
		< SHORT >			
JR501	1-216-864-11	SHORT CHIP	0		
JR502	1-216-864-11	SHORT CHIP	0		
JR503	1-216-864-11	SHORT CHIP	0		
JR504	1-216-864-11	SHORT CHIP	0		
JR505	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L901	1-456-468-11	INDUCTOR	100uH		
L911	1-456-467-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q501	8-729-802-80	TRANSISTOR	2SC3661		
Q502	8-729-802-80	TRANSISTOR	2SC3661		
Q520	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q521	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q522	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q523	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q524	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q551	8-729-802-80	TRANSISTOR	2SC3661		
Q552	8-729-802-80	TRANSISTOR	2SC3661		
Q581	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q582	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q583	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R		
Q584	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q585	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q903	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q904	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R500	1-216-813-11	METAL CHIP	220	5%	1/10W
R501	1-216-845-11	METAL CHIP	100K	5%	1/10W
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-833-11	METAL CHIP	10K	5%	1/10W
R504	1-216-845-11	METAL CHIP	100K	5%	1/10W
R506	1-216-833-11	METAL CHIP	10K	5%	1/10W
R507	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R508	1-216-821-11	METAL CHIP	1K	5%	1/10W
R509	1-216-836-11	METAL CHIP	18K	5%	1/10W
R510	1-216-816-11	METAL CHIP	390	5%	1/10W
R511	1-216-839-11	METAL CHIP	33K	5%	1/10W
R513	1-216-821-11	METAL CHIP	1K	5%	1/10W
R514	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R515	1-216-837-11	METAL CHIP	22K	5%	1/10W
R516	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R521	1-216-809-11	METAL CHIP	100	5%	1/10W
R522	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R525	1-216-809-11	METAL CHIP	100	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W
R552	1-216-809-11	METAL CHIP	100	5%	1/10W
R553	1-216-833-11	METAL CHIP	10K	5%	1/10W
R554	1-216-845-11	METAL CHIP	100K	5%	1/10W
R556	1-216-833-11	METAL CHIP	10K	5%	1/10W
R557	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R559	1-216-836-11	METAL CHIP	18K	5%	1/10W
R560	1-216-816-11	METAL CHIP	390	5%	1/10W
R561	1-216-839-11	METAL CHIP	33K	5%	1/10W
R563	1-216-821-11	METAL CHIP	1K	5%	1/10W
R564	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R581	1-216-845-11	METAL CHIP	100K	5%	1/10W
R582	1-216-845-11	METAL CHIP	100K	5%	1/10W
R583	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R584	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R585	1-216-833-11	METAL CHIP	10K	5%	1/10W
R586	1-216-821-11	METAL CHIP	1K	5%	1/10W
R587	1-216-821-11	METAL CHIP	1K	5%	1/10W
R588	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R589	1-216-835-11	METAL CHIP	15K	5%	1/10W
R590	1-216-835-11	METAL CHIP	15K	5%	1/10W
R591	1-216-833-11	METAL CHIP	10K	5%	1/10W
R592	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R593	1-216-833-11	METAL CHIP	10K	5%	1/10W
R594	1-216-833-11	METAL CHIP	10K	5%	1/10W
R595	1-216-833-11	METAL CHIP	10K	5%	1/10W
R596	1-216-837-11	METAL CHIP	22K	5%	1/10W
R597	1-216-864-11	SHORT CHIP	0		
R598	1-216-809-11	METAL CHIP	100	5%	1/10W
R904	1-216-824-11	METAL CHIP	1.8K	5%	1/10W

REGULATOR **VIDEO** **VR**

Ref. No.	Part No.	Description			Remark
R905	1-216-797-11	METAL CHIP	10	5%	1/10W
R906	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R907	1-216-837-11	METAL CHIP	22K	5%	1/10W
R914	1-216-820-11	METAL CHIP	820	5%	1/10W
R915	1-216-797-11	METAL CHIP	10	5%	1/10W
**********					
		VIDEO BOARD			
		**********			
		< CAPACITOR >			
C800	1-126-960-11	ELECT	1uF	20%	50V
C801	1-126-960-11	ELECT	1uF	20%	50V
C802	1-126-960-11	ELECT	1uF	20%	50V
C803	1-126-965-91	ELECT	22uF	20%	50V
C804	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C805	1-126-960-11	ELECT	1uF	20%	50V
C806	1-126-960-11	ELECT	1uF	20%	50V
C807	1-126-960-11	ELECT	1uF	20%	50V
C808	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C809	1-104-658-91	ELECT	100uF	20%	10V
C810	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C813	1-126-916-11	ELECT	1000uF	20%	6.3V
C815	1-126-916-11	ELECT	1000uF	20%	6.3V
C817	1-126-916-11	ELECT	1000uF	20%	6.3V
C819	1-126-916-11	ELECT	1000uF	20%	6.3V
C821	1-126-916-11	ELECT	1000uF	20%	6.3V
C822	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C823	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C824	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C825	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C826	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C827	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C828	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C829	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C830	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
* CN800	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN801	1-779-281-11	CONNECTOR, FFC (LIF (NON-ZIF)) 13P			
		< SHORT >			
FB800	1-216-864-11	SHORT CHIP	0		
FB801	1-216-864-11	SHORT CHIP	0		
FB802	1-216-864-11	SHORT CHIP	0		
FB803	1-216-864-11	SHORT CHIP	0		
FB804	1-216-864-11	SHORT CHIP	0		
FB805	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC801	6-705-602-01	IC MM1623BFBE			
		< JACK >			
J801	1-537-943-11	TERMINAL, S (S VIDEO OUT)			
J802	1-774-227-11	JACK, PIN 1P (VIDEO OUT)			
J803	1-817-601-11	JACK, PIN 3P (COMPONENT VIDEO OUT)			

Ref. No.	Part No.	Description			Remark
		< SHORT >			
JR801	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L801	1-412-058-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q800	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R800	1-216-809-11	METAL CHIP	100	5%	1/10W
R801	1-216-833-11	METAL CHIP	10K	5%	1/10W
R802	1-218-285-11	METAL CHIP	75	5%	1/10W
R803	1-218-285-11	METAL CHIP	75	5%	1/10W
R804	1-218-285-11	METAL CHIP	75	5%	1/10W
R805	1-218-285-11	METAL CHIP	75	5%	1/10W
R806	1-218-285-11	METAL CHIP	75	5%	1/10W
R807	1-216-809-11	METAL CHIP	100	5%	1/10W
R808	1-218-285-11	METAL CHIP	75	5%	1/10W
R809	1-216-833-11	METAL CHIP	10K	5%	1/10W
R811	1-216-809-11	METAL CHIP	100	5%	1/10W
R814	1-216-833-11	METAL CHIP	10K	5%	1/10W
**********					
		VR BOARD			
		*********			
		< CONNECTOR >			
CN703	1-785-331-11	PIN, CONNECTOR (LIGHT ANGLE) 5P			
		< VARIABLE RESISTOR >			
RV701	1-227-709-11	RES, VAR, CARBON	50K (ECHO LEVEL ◿)		
RV702	1-227-709-11	RES, VAR, CARBON	50K (MIC LEVEL ◿)		
**********					
		MISCELLANEOUS			
		**********			
6	1-827-729-11	WIRE (FLAT TYPE) (23 CORE)			
54	1-827-003-11	CORD (WITH CONNECTOR) 19P			
55	1-827-012-11	CORD (WITH CONNECTOR) 20P			
56	1-693-671-11	TUNER (FM/AM) (TM-10E)			
57	1-828-954-11	WIRE (FLAT TYPE) (9 CORE)			
58	1-400-043-11	CORE, FERRITE (EA, AUS)			
58	1-400-640-11	CORE, FERRITE (EA, AUS)			
58	1-469-089-11	FILTER, CLAMP (FERRITE CORE) (EA, AUS)			
58	1-543-982-12	CORE, FERRITE			
⚠107	8-820-290-02	OPTICAL PICK-UP (KHM-310CAA/C2RP)			

MEMO

HCD-WZ88D

SONY

E Model
Australian Model

SERVICE MANUAL

Ver. 1.1 2005.11

SUPPLEMENT-1

Subject : Addition of ELECTRICAL ADJUSTMENT

9-879-693-81

ELECTRICAL ADJSTMENT

Note 1: HCD-WZ88D does not operate independently.
DXA-WZ88D is required to operate this.
In this case of a service, please connect DXA-WZ88D.

Note 2: Regarding the notification symbol "R"
Because the number of the operating buttons of this product are limited, some operations require use of the operating buttons of the remote commander, When a specific operation requires use of the operating buttons of the remote commander, "R" is added to the specific operating procedure in this manual.
Example MENU/NO "R" The MENU/NO button of remote commander.

Note 3: Incorrect operations may be performed if the test mode is not entered properly.
In this case, press the I/⏻ button to turn the power off, and retry to enter the test mode.

DVD SECTION

[TEST DISC LIST]

Be sure to use the DVD disc that matches the signal standards of your region.

• CD
YEDS-18 (Part No.: 3-702-101-01)
PATD-012 (Part No.: 4-225-203-01)
• DVD SL (Single Layer)
NTSC : HLX-503 (Part No.: J-6090-069-A)
HLX-504 (Part No.: J-6090-088-A)
PAL : HLX-506 (Part No.: J-6090-077-A)
• DVD DL (Dual Layer)
NTSC : HLX-501 (Part No.: J-6090-071-A)
HLX-505 (Part No.: J-6090-089-A)
PAL : HLX-507 (Part No.: J-6090-078-A)

When the base unit is replaced, perform the adjustment and the measurement as shown below in this order.

[STARTING TEST MODE]

Press three buttons ■ , ⏏ and VOLUME + simultaneously with the DVD player in standby mode.
The Test Mode starts, then the menu shown below will be displayed on the TV screen.

```
Remocon Diagnosis Menu

0. External Chip Check
1. Servo Parameter Check
2. Drive Manual Operation
3. Emergency History
4. Version Information
5. Video Level Adjustment

Model Name : WDZ5D_GA
IF-con     : Ver. xx.xx (xxxx)
Syscon     : Ver. x.xxx
```

The menu above is the Remocon Diagnosis Menu screen which consists of six main function. At the bottom of the menu screen, the model name and IF-con version. To enter Mirror Time Adjustment menu, press button 2 "R" on the remote commander to enter Drive Manual Operation menu. To exit from the Test Mode, press the power button on the remote commander.

[DRIVE MANUAL OPERATION]

The Drive Manual Operation menu consists of five main function. By pressing 2 "R" button on the remote commander in the Remocon Diagnosis Menu, the screen will appear as below.

```
Drive Manual Operation

1. Servo Control
2. Track/Layer Jump
3. Manual Adjustment
4. Mecha test mode
5. MIRR time Adjust
0. Return to Top Menu
```

[MIRROR TIME ADJUSTMENT]

To enter Mirror Time Adjustment, press 5 "R" button on the remote commander. The screen will appear as below.

```
MIRR time Adjust Menu

1. CD MIRR time Check:
2. DVD MIRR time Check:
3. Threshold:
4. Save to EEPROM
5. Default set MIRR time

[Open] Tray open [Close] Tray close
[0] Return to previous menu
```

There are five main commands in the Mirr time Adjust menu as shown in the figure above. The functions of each command are described in the following page.

1. CD MIRR time Check
This command checks the Mirror time value for CD disc.

2. DVD MIRR time Check
This command checks the Mirror time value for DVD disc.

3. Threshold
This command displays the threshold value between CD and DVD mirror time.

4. Save to EEPROM
This command saves an adjusted mirror time value to the EEPROM.

5. Default set MIRR time
This command will set CD and DVD mirror time to firmware default value.

[Open] / [Close]
Pressing the ⏏ button controls the tray for disc change during mirror time adjustment.
[0] Return to previous menu
Press 0 "R" button to return to previous menu.

[EXECUTING MIRROR TIME ADJUSTMENT]

In order to execute mirror time adjustment, the following standard procedures must be followed.

(1) In standby mode, press three buttons ■ , ⏏ and VOLUME + simultaneously.
(2) Select “2. Drive Manual Operation”.

```
Remocon Diagnosis Menu

0. External Chip Check
1. Servo Parameter Check
2. Drive Manual Operation
3. Emergency History Check
4. Version information
5. Video Level Adjustment

Model      : WDZ5D_GA
IF-con     : Ver. xx.xx (xxxx)
Syscon     : Ver. x.xxx
```

(3) Select “5. MIRR time Adjust”.

```
Drive Manual Operation

1. Servo Control
2. Track/Layer Jump
3. Manual Adjustment
4. Mecha test mode
5. MIRR time Adjust
0. Return to Top Menu
```

(4) Select “5. Default set MIRR time”.

```
MIRR time Adjust Menu

1. CD MIRR time Check:
2. DVD MIRR time Check:
3. Threshold:
4. Save to EEPROM:
5. Default set MIRR time:

[Open] Tray open [Close] Tray close
[0] Return to previous menu
```

(5) Select “3. Threshold”.

(6) Confirm the number. If it is 75, go to next step. If it is any other value, return to step 4.

```
MIRR time Adjust Menu

1. CD MIRR time Check:
2. DVD MIRR time Check:
3. Threshold: (75) ←
4. Save to EEPROM:
5. Default set MIRR time:

[Open] Tray open [Close] Tray close
[0] Return to previous menu
```

(7) Push ⏏ button to eject tray.

(8) Insert Test Disc HLX-504 into tray.

(9) Push ⏏ button to close tray.

(10) Push “2. DVD MIRR time Check”.

(11) Wait for HEX number to display.

(12) Confirm the number, if XX is 28 to 70, proceed with next step. If no, return to 8.

```
MIRR time Adjust Menu

1. CD MIRR time Check:
2. DVD MIRR time Check:  xx (XX) ↙
3. Thereshold:
4. Save to EEPROM:
5. Default set MIRR time:

[Open] tray open [close] Tray close
[0] Return to previous menu
```

(13) Push “4. Save to EEPROM”.

(14) Confirm the same values are displayed. If it is not same, return to step 7.

```
MIRR time Adjust Menu

1. CD MIRR time Check:
2. DVD MIRR time Check: (XX XX) ↙
3. Threshold:
4. Save to EEPROM:
5. Default set MIRR time:

[Open] Tray open [close] Tray close
[0] Return to previous menu
```

(15) Push ⏏ button to eject tray.

(16) Take out HLX-504 and insert Test Disc YEDS-18 into tray.

(17) Push ⏏ button to close tray.

(18) Push “1. CD MIRR time check”.

(19) Wait for HEX number to display.

(20) Confirm the number, if YY is 5A to E8, proceed with next step. If no, return to 15.

```
MIRR time Adjust Menu

1. CD MIRR time Check:  yy (YY) ↙
2. DVD MIRR time Check:  XX  XX
3. Threshold:
4. Save to EEPROM:
5. Default set MIRR time:

[Open] Tray open [close] Tray close
[0] Return to previous menu
```

(21) Push “4. Save to EEPROM”.

(22) Confirm the same values are displayed. If it is not the same, return to step 15.

```
MIRR time Adjust Menu

1. CD MIRR time check: (YY YY) ↙
2. DVD MIRR time check:  XX  XX
3. Threshold:
4. Save to EEPROM:
5. Default set MIRR time:

[Open] Tray open [close] Tray close
[0] Return to previous menu
```

(23) Push ⏏ button to eject tray.

(24) Remove Test Disc YEDS-18 from tray.

(25) Push ⏏ button to close tray.

(26) Press 0 "R" button to the Drive Manual Operation menu.

(27) Press 0 "R" button to return to the Remocon Diagnosis Menu.

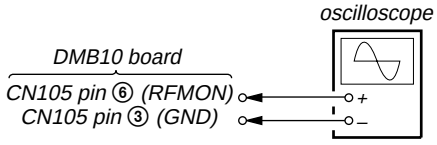
(28) Press the I/⏻ button to switch OFF set.

[EXECUTING IOP MEASUREMENT]

Refer to "• Execute IOP Measurement" on page 18.

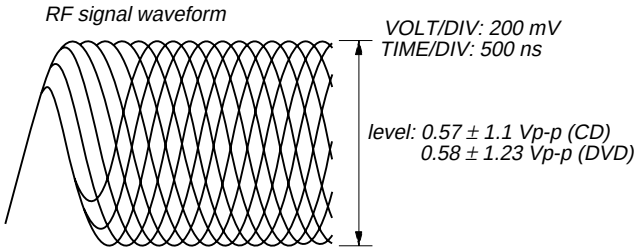
[RF Level Check]

Connection:

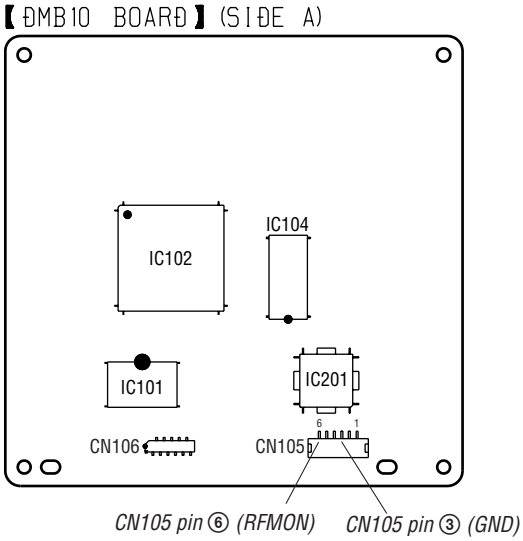


Procedure:

1. Conect an oscilloscope to CN105 pin ⑥ (RFMON) and CN105 pin ③ (GND) on the DMB10 board.
2. Turn the power on.
3. Insert the CD test disc (refer to the TEST DISC LIST), and press the ▷ button to play the disc back.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.
   Note: A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.
5. Eject the CD disc, and insert the DVD SL test disk (refer to the TEST DISC LIST), and press the ▷ button to play the disc back.



Checking Location: DMB10 board (Side A)



REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005.05	New
1.1	2005.11	Addition of Note on DMB10 board replacement SUPPLEMENT-1 : Addition of ELECTRICAL ADJUSTMENT (SPM-05077)